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He has published a number of books and articles on socio-economic problems and Soviet economic planning.

This book embraces a wide range of problems on the theory and practice of economic planning. It investigates the economic and political foundations and the methodology of planning, its organisation at the various stages of communist construction, and gives an outline of the history of Soviet long-term planning in connection with the growth of socialisation and the development of Soviet statehood.

The book introduces many new facts that throw light on the development of Soviet planning.

The author declares that planning, to be scientific, must take cognizance of the laws of social development. Socialist planning recognises that commodity production and the law of value exert a certain influence on the economy.

Events have proved that planning is one of the decisive advantages of socialism over capitalism.

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PLANNING
IN THE
USSR
PROBLEMS
OF
THEORY
AND
ORGANISATION

G. SOROKIN

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PROGRESS PUBLISHERS
Moscow 1967

TRANSLATED FROM THE RUSSIAN BY DON DANEMANIS

EDITED BY NIKKA BROOSHOOFT

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Г. Сорокин

ПЛАНИРОВАНИЕ
НАРОДНОГО ХОЗЯЙСТВА СССР

На английском языке

First printing 1967

Printed in the Union of Soviet Socialist Republics

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CHAPTER I

ECONOMIC AND POLITICAL BASIS OF PLANNING

For more than four decades now the Soviet economy has been managed according to plan. Economic planning developed and became more effective as the socialist economy and the Soviet state grew stronger. To millions of people all over the world socialist planning has become a symbol of crisis-free economic development in the interests of society as a whole. Following the establishment of the dictatorship of the proletariat and the launching of socialist construction in the People's Democracies in Europe and Asia, planning has rapidly spread to those countries. The experience of planned socialist construction and the development of Marxist economic thought now make it possible to draw up some precepts and rules on which scientific planning should be based.

In studying the inception and development of planned socialist economy, Marxist political economy approaches the problem from a scientific, materialistic and historical standpoint. Planned economy cannot be established before the necessary material prerequisites have matured. Planned socialist economy springs from social life and cannot be forcibly imposed from without. "...No revolt can bring about socialism," Lenin said, "unless the economic conditions for socialism are ripe..."*

Planned economy is not the brilliant invention of some scholar or statesman—it springs from the objective economic relations prevailing at a definite stage of social development, from the public ownership of the means of production. Planned economy emerges with the victory

* Lenin, *Collected Works*, Vol. 25, p. 359.

of the socialist revolutions in the imperialist stage of the world capitalist economy. It is a sign of the times, a sign of the 20th century.

To understand socialist planning we must, first, determine what material causes make it necessary to establish economic planning on a national scale, second, what objective trends promote the development of "proportionality", one of the most important features of socialism, third, what social forces are able to carry out economic planning on a national scale, and, finally, on what theoretical and methodological basis economic plans should be constructed. These problems are discussed later in the book.

In the transition period from capitalism to socialism and in a fully socialist society, planning is a form of economic management by the state, based on the knowledge and utilisation of objective socialist economic laws, independent of personal wills or desires. Given the necessary material prerequisites for planned economic development, the effectiveness of any planning depends on how correctly state bodies apply the basic economic laws.

The development of planned socialist economy is a complex process whose main features are determined by the basic economic law. Specific economic laws determine the secondary features of the socialist mode of production. The secondary laws are linked with the basic economic law whilst retaining a cohesion among themselves; they reflect the essential links between the various aspects of the socialist mode of production. During the transition period the specific laws of the socialist mode of production interact with those of the transient laws of the less developed economic forms which, at that stage, coexist with socialism. To understand the essence of planning, all the laws regulating production, distribution, social exchange, accumulation and consumption must be apprehended, since economic planning embraces all aspects of reproduction and all the sectors of the economy.

Special attention should be given to the basic economic law which states that under socialism the direct object of social production is the ever fuller satisfaction of the constantly growing material and cultural requirements of the

people through continued development and improvement of production on the basis of new equipment. The basic economic law expresses the aim of socialist production and therefore also the task of socialist economic planning. To manage the economy according to plan it is also necessary to understand the operation of other laws, such as the law of planned and balanced development, the law of the steady growth of labour productivity, the law of the growth of socialist accumulation, the law of the population's increasing consumption and the law of value. The consideration of these laws necessitate in economic planning and the requirements they pose to the planner are dealt with in the relevant chapters. At the same time this book is not purely a study of the basic and secondary economic laws of socialism, but the problems dealt with cannot be understood without a detailed investigation of the economic law of planned, balanced development.

Conditions for the Emergence of the Law of Planned, Balanced Development, and Its Nature

Economic laws operate under definite historical conditions. The law of planned, balanced development emerges and begins to operate when public ownership of the means of production and socialist production relations have been established. Once the conditions have been created it becomes both necessary and possible to maintain a conscious proportionality in the economy, and thereby ensure the satisfaction of the growing requirements of society and the rapid advance of the economy and technology.

Like all other economic laws of socialism, the law of planned, balanced development expresses socialist production relations. It does not express all their aspects but only a few of the most substantial and objectively essential interrelations in the complex process of socialist production. The law of planned, balanced development does not, for instance, define the aims of socialist production, does not show why the productivity of social labour should steadily grow nor how socialist accumulations form and why they are essential.

It throws light on the nature and principal features of proportionality in socialist economy and shows how socialist production relations open up the possibility of consciously maintaining proportions and thereby achieving a crisis-free reproduction. Only a thorough study of the importance of public ownership of the means of production and socialisation along socialist lines, will help us understand the conditions under which the law of planned, balanced development emerges and operates in socialist economy.

In the Soviet Union socialisation of the economy began after the victory of the October Revolution, and was effected by the substitution of capitalist and feudal forms of property by socialist property.

The ownership of the means of production is the economic basis of any social system. In a class society, those owning the means of production organise the labour, and distribute the social product in their own interests. The history of socialist construction in the U.S.S.R. is marked by a struggle for the establishment and consolidation of public ownership, the only form of ownership promoting the rational use of all the means of production and labour resources in the interests of the people.

Socialist ownership unites enterprises which were formerly disassociated and vied in competition. Socialist ownership breaks down the barriers private ownership raises between enterprises and economic spheres. Under capitalism enterprises are linked sporadically through marketing and competition, but under socialism, where all enterprises belong to a single owner—society—they are linked directly through a single economic plan. The abolition of private and the establishment of public ownership of the means of production have joined the multitude of individual enterprises into a single economic body. This huge, complex economic body with its many interconnected branches, belonging to society as a whole, can be organised only on a social scale and on a planned basis. In the Soviet Union 690,000 factories and workshops, 41,300 collective farms, over 8,000 state farms and 587,000 trading establishments are public socialist property (belonging to the people as a whole or to co-operatives).

This complex of interlinked enterprises could not function normally without planning on a social scale. Every

industrial or agricultural socialist enterprise works to satisfy definite social needs. The output of a large or a very large enterprise supplies a region and often even the country as a whole. To organise the uninterrupted operation of these enterprises, full and exact account must be taken of the country's requirements for these particular products and of the channels through which they will be distributed. Conversely, every enterprise must be constantly supplied with raw materials, fuel, equipment and other means of production, the output of which must also be commensurate with social needs.

This shows that modern production links are ramified, and develop in complexity as production concentrates and specialises. Without co-ordination of the work of enterprises on a social scale and in social interests there would be anarchy of production. The organisation of production, distribution, exchange and consumption in accordance with social requirements—both productional and personal—is the main content of planned economy. Socialist ownership of the means of production enables the state to determine the requirements of society, and production resources, in advance, and to use them according to plan for the expansion of production and the satisfaction of the growing material and cultural requirements of the people.

By uniting production on a social scale, socialist ownership becomes the basis for the nation-wide co-operation of labour. This co-operation is based on direct social labour and presupposes the participation in social production of all kinds of labour. Labour becomes a conscious activity of society and employment no longer depends on the caprices of an unorganised market. Nation-wide co-operation of labour also presupposes strict proportionality in the distribution of workers between the various economic fields. That is why nation-wide co-operation of labour must be planned.

The fact that socialist property and socialist co-operation of labour extend to all spheres of socialist production guarantees that the whole economy develops in a planned and balanced way. Being connected with all the principal aspects of socialist production relations, planned and balanced development becomes an important feature of these relations. The evolution of socialist production

relations, in turn, makes planned, balanced development and planned co-operation of labour even more important.

Historically, the rapid growth of the socialisation of production along socialist lines began with the revolutionary replacement of private by public property. This replacement destroyed the antagonistic contradictions inherent in capitalist socialisation, lent socialisation a fundamentally different social character and increased its scale. It first embraced industry and then extended to agriculture.

Small peasant holdings predominate in capitalist agriculture. Under socialism these holdings are united into large agricultural enterprises. Collective farms and state farms are dominant in agricultural production. There is a certain difference between socialisation based on the ownership of the means of production by the whole people and socialisation based on the ownership of the means of production by collective farms, even though they are of the same type, and are both socialist in character. Public property obviously involves a higher level of socialisation than co-operative property. In the collective farms the final output and many means of production belong to co-operatives and not to the people as a whole; the level attained by the concentration of production and technical equipment is lower than in state enterprises; socialist collective-farm property lives side by side with partial private ownership of agricultural produce, and with the private plots of the collective farmers.

Yet there are no fundamental differences between public and co-operative property. The difference between collective farms and state enterprises is a difference within a single formation, within the socialist mode of production. Socialisation on the basis of collective-farm property introduces large-scale socialist production.

The difference in the forms of property and in the level of socialisation between state and co-operative enterprises produces only minor differences in the balanced development of the two sectors of social production. Like public property, collective-farm-co-operative property also presupposes a planned, balanced development. The balanced development of collective-farm production is based on the balanced development of the state economy as a whole.

As production relations and productive forces develop, so production becomes more socialised.

The productive forces, including the instruments of labour, are the most mobile and revolutionary element in the evolution of any mode of production. Historically speaking this is true also of socialisation. The emergence and development of powerful means of production under capitalism have produced socialisation of labour and production and have given rise to discrepancies between the productive forces and production relations. The socialist revolution established socialist ownership of the basic means of production making the productive forces compatible with the production relations, and further consolidated socialisation. The improvement of the productive forces, and especially of the instruments of labour, accelerates the socialisation of labour and production on the basis of socialist property.

The growth of large-scale industry serves as a reliable material basis for socialisation along socialist lines. The powerful instruments of labour at the command of the socialist machine industry and the constant construction of giant new machines, could not possibly be effectively utilised by private owners or in relatively small enterprises—to obtain the maximum efficiency, they must be worked collectively in the interests of the whole of society. Modern power systems, for example, unite power stations which have a joint capacity of several million kw and supply power to vast regions. Modern iron and steel works are annually smelting millions of tons of metal and with the mines supplying them form giant enterprises, employing tens of thousands of people.

The development of giant machinery is exerting a substantial influence on the general trends of large-scale production and in many cases determines the size of enterprises. A large turbine, large rolling mill or metal-working lathe can be used effectively only in very large enterprises. Tractors, combine harvesters and other agricultural machinery can be used effectively only on areas far too large to be worked by individual farmers. For a long time even a great many collective farms did not possess such an area, and it is for this reason that collective farms are continually

being merged, and have, in the past 20 years, decreased by 77.3 per cent while the output has grown considerably.

Speaking about the influence of machines on the socialisation of labour Karl Marx said: "Machinery, with a few exceptions, operates only by means of associated labour, or labour in common. Hence the co-operative character of the labour-process is, in the latter case, a technical necessity dictated by the instrument of labour itself."* In a socialist society technology exerts an even greater effect on the socialisation of production because it overcomes the limitations imposed on machine industry by capitalism and allows engineering to develop at a much faster rate.

The division of labour, which is a feature of machine industry, also accelerates the socialisation of production. The larger the scale of production, the greater becomes the division of labour, and the more social becomes production. The division of labour leads to the setting up of specialised enterprises. These enterprises are highly dependent on each other and the links between them expand steadily. Since the division of labour is based on a high level of development of the productive forces and on the expansion of production, it draws tens and hundreds of thousands of new workers into production.

Industrial development in the Soviet Union shows that new industries are growing rapidly and that the links between the various industries are becoming more complicated.

We have witnessed the emergence of heavy and precision machine-building, power machine-building, the motor industry, the tractor and harvester combine industries; branches producing machines and equipment for the iron and steel, coal, timber, oil, chemical and building industries; the aircraft industry and industries producing means of automation, computers, and many others. The atomic industry has also made rapid strides. New fields have been developed in the chemical industry, as well as in the metal production and consumer durable industries. New branches are emerging even in single product industries where there are no apparent conditions for specialisation. For example, in the coal industry, we observe the formation of such branches as coal briquetting, coal refining, and coal-chemical output.

* Karl Marx, *Capital*, Vol. I, Moscow, 1959, p. 386.

The emergence of new industries is an indication of the rise in the technical level of the economy on the basis of specialised mass production and the development of the division of labour. The technical revolution splits the production process into separate operations. Lenin said that this specialisation of social labour "...by its very nature is as infinite as technical developments".*

Marx and Engels noted that "how far the productive forces of a nation are developed is shown most manifestly by the degree to which the division of labour has been carried".**

The new forms of production organisation and technology ushered in by the advance of socialist large-scale machine industry and technology accelerate the process of socialisation. Electrification, mechanisation and automation form the basis for the mass specialisation of factories, while electrification and chemicalisation are especially conducive to the creation of complex combined enterprises. Both specialisation and combination of production are characterised by a high degree of socialisation. The development of socialist property and large-scale socialist production are a single process which welds the labour in many enterprises into a single labour process. Socialisation on the basis of public property has the tendency to embrace the whole of society, to make society "... a single office and a single factory".

The modern development of productive forces makes it imperative for the basic means of production to become public property, the property of the whole people. Private ownership does not allow for the giant instruments of labour created by capitalism to be used rationally and in the interests of society, moreover, it hampers the development of the productive forces.

The rapid growth and socialisation of production is accompanied by an increase in the numbers and the concentration of the proletariat—the force destined to destroy the exploiting classes. The interests of the proletariat and those of the development of the productive forces require the unification and centralisation of production, and the

* Lenin, *Collected Works*, Vol. 1, p. 100.

** Marx and Engels, *The German Ideology*, Moscow, 1964, p. 32.

establishment of a single planned economy. Lenin said that "...large-scale machine industry—which is precisely the material source, the productive source, the foundation of socialism—calls for absolute and strict *unity of will*, which directs the joint labours of hundreds, thousands and tens of thousands of people".*

To maintain the dictatorship of the proletariat and to consolidate it, the proletariat's actions must be co-ordinated and concerted. This is achieved by joint production and by political union in the Communist Party. The building of socialism, Lenin taught, "means building a centralised economic system, an economic system directed from the centre, and that can only be done by the proletariat, which has been trained in this spirit by the factory and by its whole mode of life. Only the proletariat can do this."** The proletariat and its Party uphold public property in industry because it is in keeping with the nature of the productive forces and ensures the development of socialist production relations.

The struggle of the Communist Parties for public (national) property, against petty-bourgeois, anarcho-sindicalist demands for group property in industry, played a great part in the history of the revolutionary movement. At one time the so-called Workers' Opposition*** in the Soviet Union demanded that workers be given full control of the factories at which they were employed and that industry be controlled by producers' associations. Lenin exposed the reactionary and petty-bourgeois nature of this demand, which was unanimously rejected by the Party.

The transition to socialist property and socialisation along socialist lines are objective processes, springing from the development of the productive forces. They lead to the abolition of exploitation and to the comradely co-operation of workers of socialist enterprises, the expansion of large-scale production and an increase in the division of labour, to the formation of ramified economic ties and the emer-

* Lenin, *Collected Works*, Vol. 27, p. 268.

** Lenin, *Collected Works*, Vol. 28, p. 400.

*** The Workers' Opposition—an anti-Party anarcho-sindicalist group, which overemphasised the role of trade unions and belittled that of the Party. The group was defeated at the Eleventh Congress of the Party in 1922.

gence of a clearly defined tendency for a centralised economic life. This creates material prerequisites for planned, balanced reproduction and planned economy becomes an economic necessity. Lenin pointed out that "large-scale machine industry, unlike the preceding stages, imperatively calls for the planned regulation of production and public control over it".*

Large-scale machine production prepares some of the material conditions for planned economy even under capitalism. Capitalism makes a clean break with natural economy, thereby accentuating the problem of expanding the market. The whole country becomes a market for the output of large enterprises and especially the monopolies. Large firms often succeed in extending the market even beyond national borders. Capitalism increases production by concentration, by using ever larger instruments of labour, and by introducing specialisation of production and strengthening the links between enterprises. As production assumes an increasingly social character, large-scale machine industry creates trusts and banks—the administrative apparatus of the capitalist socialisation of production. But under capitalism this only exacerbates the antagonistic contradiction between social production and private appropriation, and aggravates the disproportionality of the economy. Anarchy and crises of overproduction are corollaries of production based on private ownership.

In the present stage of the general crisis of capitalism the conflict between the productive forces and the relations of production in capitalist countries has become sharper than ever before. Capitalist production continuously becomes more anarchical.

While capitalist socialisation leads up to planning, socialist ownership of the means of production, and socialist socialisation make planning indispensable. Under socialism there is no private ownership and no exploitation of workers, and in these conditions large-scale machine production and the concentration and specialisation of production grow at an unprecedented rate. Socialist society creates an apparatus for accounting and planning which develops the economy in accordance with social requirements and available resources.

* Lenin, *Collected Works*, Vol. 3, p. 544.

Public property, socialisation along socialist lines, and a planned economy are inevitable for all countries building socialism, although there may be certain differences in the form these processes assume in different countries. In a number of People's Democracies new features have been involved for planned socialist construction, since co-operation and planning in agriculture is carried out in conditions where the land still remains the private property of the working peasantry. This involves certain modifications to the process of socialisation and makes planning more difficult.

But, in spite of these slight modifications, the economic development in all socialist countries conforms to the objective laws of the socialist mode of production. Moreover, everywhere socialist socialisation exhibits what Lenin defined as "a tendency towards the creation of a single world economy, regulated by the proletariat of all nations as an integral whole and according to a common plan. This tendency has already revealed itself quite clearly under capitalism and is bound to be further developed and consummated under socialism."*

The emergence of the world socialist system widened the scope of the law of planned, balanced development and posed the problem of co-ordinating the economic plans of the socialist countries. Such co-ordination enables these countries to make full use of the advantage offered by the geographic division of labour and to plan mutual economic assistance in the interests of every single socialist country and of the community as a whole. The 1919 Programme of the C.P.S.U. declared that "steps should be taken to extend economic co-operation and political ties with other peoples, while striving to work out a single economic plan with the countries which have already made the transition to Soviet government".

The Statement of the Moscow Meeting of Representatives of Communist and Workers' Parties held in November 1960 contains a profound analysis of the world socialist economy and defines its prospects as follows: "The world economic system of socialism is united by common socialist relations of production and is developing in accordance

* Lenin, *Collected Works*, Vol. 31, p. 147.

with the economic laws of socialism. Its successful development requires consistent application, in socialist construction, of the law of planned, proportionate development; encouragement of the creative initiative of the people; continuous improvement of the system of international division of labour through the co-ordination of national economic plans, specialisation and co-operation in production within the world socialist system on the basis of voluntary participation, mutual benefit and vigorous improvement of the scientific and technological standard. It requires study of collective experience; extended co-operation and fraternal mutual assistance; gradual elimination, along these lines, of historical differences in the levels of economic development, and the provision of a material basis for a more or less simultaneous transition of all the peoples of the socialist system to communism."*

The world socialist community has entered a new stage of development. The Soviet Union is already building communism, while some socialist countries are laying the foundations for socialism, and others have already taken up the building of a developed socialist society. The new socio-economic conditions in these countries make the restoration of capitalism impossible and this means that the complete victory of socialism has been ensured in the whole community. The meeting of the First Secretaries of the Central Committees of the Communist and Workers' Parties and Heads of Government of the Council of Mutual Economic Assistance (CMEA) member-countries declared in July 1963 that the preparation for a practical implementation of the co-ordination of long-term plans for 1966-70 was the most urgent task in the economic co-operation between the CMEA member-countries. It was agreed that in co-ordinating the five-year plans particular attention would be given to international specialisation and combination of production in order to fully satisfy the growing requirements of the CMEA countries in fuel, power, and raw materials to develop the chemical industry, engineering, electronics and other progressive branches of the economy. The co-ordination of plans will make world

* *The Struggle for Peace, Democracy and Socialism*, Moscow, pp. 48-49.

socialist production more effective and improve the economic organisation in that system.

The establishment of socialist property and the development of large-scale socialist production leads to the formation of new *economic proportions*. All aspects of social production and all branches of the economy interact in the course of the reproduction process, and the greater the development of the productive forces, the more complex and tightly knit become these links. When reproduction is planned, these links are strictly defined for every given moment, and the dependence of one branch on the other assumes more or less stable proportions, while the interdependence of the branches can be measured quantitatively with a high degree of accuracy.

Economic proportions are historico-relative. They are dynamic, and their continuous development leaves no room for ossified proportions. An economic proportion is like living tissue that grows and develops on the body of a mode of production and shares its fate. Capitalist proportions appear with the emergence of capitalist production and disappear when capitalism is destroyed. New socialist proportions come into being with the emergence of the socialist system and develop along together with the new mode of production.

The Great October Revolution introduced new proportions into the Soviet economy. It liberated society from some of the most acute incongruencies of capitalist development (the antagonistic contradiction between production and consumption, to name but one), and created conditions for the abolition of other disproportions (for example, the incompatibility of industry and agriculture).

The dependence of the economic proportions on production relations determines their socio-economic character. In a class society economic proportions reflect the relations between classes in the reproduction process, arising out of property relations. A study of the proportions in socialist economy helps to understand the law of planned, balanced development.

The following basic economic proportions, or quantitatively determined relationships emerge during the reproduction of material wealth.

The proportions between production and consumption;

Departments I and II; demand and supply; accumulation and consumption; industry and agriculture; production and transport; the means of production and labour resources, and between the main economic districts.

Any detailed economic study must involve all the concrete aspects of these proportions. The proportion between Departments I and II may be supplemented by a study of the relations between groups A and B in industry. The supply and demand situation may be rendered more concrete by studying the relations between the income and expenditure of the population. A study of the proportions between accumulation and consumption involves an investigation of the allocation of national income for these two purposes, and also of the relations between real income and labour productivity, etc.

Production ratios are also dependent on the economic system and on the level of technical development. This applies to the relations between the iron and steel industry and the consumer branches, between the fuel and power industry and national economy, etc. In his "How Can Per Capita Consumption in Russia Be Increased?", Lenin demonstrated that metal consumption, i.e., the development of the iron and steel industry was connected with the social system, and quoted the example of small peasant holdings in tsarist Russia who were unable to replace their wooden implements by metal instruments of labour. Under the new social conditions large-scale introduction of machines into agriculture follows hard on the heels of their introduction into industry.

The extent to which production capacities are used in the iron and steel industry is also directly connected with the social system. Under capitalism capacities are generally not used to the full, and during crises underemployment assumes catastrophic proportions. Under socialism the improvement in the utilisation of capacities is a matter of state concern.

Gleb Krzhizhanovsky* spoke of the unprecedented prospects for electrification opened up by socialism. The abolition of private property creates conditions for the

* Academician Gleb Krzhizhanovsky (1872-1959), a revolutionary of long standing, wrote a number of important works on power engineering.

electrification of the whole country to be achieved through the complex utilisation of power resources, the construction and linking-up of giant power stations to form a single system. It is therefore only natural that the Soviet Union has become a world leader in the complex utilisation of power resources, in the centralisation of power supply, and in the most effective use of power capacities.

The development of the iron and steel, power and other industries and their mutual links depends not only on the prevailing social system but also on the prevailing technical level, which determines the metal consumption in engineering and construction, and the consumption of fuel and power in all branches of the economy. The total consumption of fuel by the railways, for example, depends greatly on the types of engines used for traction. Steam locomotives are the least efficient and use relatively more fuel, whereas the electric locomotives have a greater efficiency and require less fuel.

In investigating production ratios we must consider both the social and the technical aspects. An underestimation of an economic or technical factor may lead to a major mistake in planning.

General economic proportions are determined primarily by the economic system, particular production links by the level of technical development. Thus, within the same mode of production, the quantitative relations between the extraction of iron ore and the output of blast furnaces depend on the quality of the ore, the methods used for its extraction and initial processing, and on the techniques used in blast furnace production, i.e., they are "predetermined by technology". Karl Marx noted that the technical basis of large-scale industry is revolutionary and that continual changes in the technical basis lead to changes in the social combinations of the labour process.*

In separate enterprises proportionality depends directly on technology, but on a social scale it is determined by the operation of economic laws, the social division of labour and the degree of socialisation. For obvious reasons it is much more difficult to study proportionality on a social scale than to study it in a single enterprise.

* See Karl Marx, *Capital*, Vol. I, pp. 486-87.

The formation of economic proportions, based on socialist property and the socialisation of production, guarantees a crisis-free development of the economy, rapid economic growth and a systematic increase in public consumption. The law of planned, balanced development regulates economic proportions under socialism. As private capitalist ownership of property and capitalist economy are ousted by socialism, the capitalist law of competition and anarchy of production is replaced by the law of planned, balanced development.

In any society there must be a definite proportionality between the main economic elements to ensure the development of production. For capitalist reproduction to take its course, the product must be realised, the fixed and circulating capital must be replaced in money and in kind, and there must be congruity between the material and monetary elements of accumulation, etc. In his famous letter to Kugelmann, Marx says: "That this *necessity* of the *distribution* of social labour in definite proportions cannot possibly be done away with by a *particular form* of social production but can only change the *form* in which it *appears*, is self-evident."* He goes on to say that the proportional distribution of labour in commodity production is expressed in the exchange value of the commodity. In Marx's letter, the problem of proportionality is dealt with in a very general form. The same letter points out that it is up to science to explain how the law of value operates.

It is not for science to repeat generally recognised truths, but to investigate the particular forms in which the proportionality of social production is manifested. Economic science would not be able to develop if economists did no more than manipulate abstract categories such as "production", "distribution", "exchange", "consumption", and "general proportionality". The discovery and study of the laws dictating the development of definite, concrete modes of production made economics a science, and it is for science to examine the conditions and methods for the achievement of proportionality in different economic formations.

* Marx and Engels, *Selected Works*, Vol. II, Moscow, 1962, p. 461.

To understand the law of planned, balanced development it is necessary to be able to distinguish between the methods used to achieve proportionality in capitalist and socialist economy.

In capitalist economy proportionality is achieved "by means of non-implementation" (Marx), and has a transient and unstable nature. A number of disproportions emerge when the national income of a capitalist society is divided into accumulation and incomes of capitalists and working people. Chief among them is the disproportion between the growth of production and the decrease, or insufficient increase, in the effective demand of the population.

The operation of the law of surplus value makes the proportions in capitalist economy dependent on changes in the rate of profit. Under capitalism the means of production are distributed in the interests of capitalists, while the economic proportions shaping under that mode of production aggravate the anarchy and disorder of social production "under conditions in which the masses live in want, in which the whole development of agriculture hopelessly lags behind the development of industry, while within industry itself the 'heavy industries' exact tribute from all other branches of industry."* The temporary proportionality in capitalist production is a result of crises, it does not do away with the antagonistic economic proportions, and every temporary check creates the prerequisites for an even greater disturbance of proportionality.

The classics of Marxist political economy have repeatedly drawn attention to the disproportionality in capitalist economy. Under the capitalist mode of production economic equilibria, Marx said, are accidental, even though there is a constant balancing in the proportions of capital invested in the different spheres. But the very constancy of the process presupposes constant disproportions, which require continual realignment, often in a violent manner. Lenin pointed out that capitalist production is based on disproportions and crises. Crises are the device by which the constantly disturbed proportions are re-established. There is not and cannot be regularity, harmony, proportionality

* Lenin, *Collected Works*, Vol. 22, p. 217.

under capitalism. Disproportionality is a law of the capitalist system and of its development.

Under socialism economic proportions have an entirely different nature and are established in a different way. The abolition of private ownership of the means of production and the exploiting classes, and the establishment of socialist ownership and socialist organisation of social labour, create conditions under which proportionality can be constantly and deliberately maintained by studying and observing the requirements of the law of planned, balanced development and other socialist economic laws. Planned, extended reproduction is the most important feature of socialist economy. The proportionality between various aspects of social production and between economic branches and regions makes for a harmonious, balanced economic development, dispels anarchy and crises, and ensures high growth rates in all branches of social production. "Constant, deliberately maintained proportions would," Lenin said, "indeed, signify the existence of planning..."**

Practically all economic activities of state bodies are concerned with maintaining proportionality. The principal duty of the planning bodies is to ensure correct proportions in the development of the different branches, and to work out measures to obviate disproportions. Proportional development is typical of every period of socialist reproduction covered by the plan, and creates conditions for proportional development in the next planned period. If proportionality and high rates in the current period were to be followed by disproportions and low rates in the next, this would violate the basic economic law and the law of planned, balanced development. Socialism counterposes these features to the uneven development of capitalism, which develops "...spasmodically, in fits and starts".**

The law of planned, balanced development thus expresses objective, necessary, even essential links in the development of socialist economy and shows that objective economic proportions must be deliberately maintained in socialist reproduction. The law of planned, balanced development regulates the distribution of the social product,

* Lenin, *Collected Works*, Vol. 3, p. 617.

** Lenin, *Collected Works*, Vol. 19, p. 283.

national income and labour force between the various branches of the economy. Owing to the domination of socialist property, society is able to establish proportionality, and to maintain it consciously. That is why the law of planned, balanced development is not a spontaneous regulator of production, like the law of value is under capitalism. The requirements of the law of planned, balanced development are met by the conscious activity of society.

To understand the law of planned, balanced development a thorough study must be made of the relation of this law to the other economic laws of socialism and of the specific requirements of these laws.

The law of planned, balanced development has a secondary characteristic—it can operate only in conjunction with and on the basis of the basic economic law. It is not concerned with the aim of social production and does not specify how proportionality in the economy can be attained. The aim of social production is specified in the basic economic law and the proportions of social production conform with this aim.

The basic economic law of socialism explains the principal features of the socialist mode of production, the high economic growth rates of the Soviet Union and also the reason for the rapid rate of growth of the Soviet economy and of the people's welfare. The achievement of the principal aim of socialist production is an economic necessity, since the productive forces and relations of production can develop fully only under these conditions. It ensures economic progress and obviates conflicts between the productive forces and relations of production. The requirements and typical features of the law of planned, balanced development unfold in conformity with the basic economic law.

The law of planned, balanced development is linked not only with the basic economic law but also with the other economic laws which in turn are dependent on it.

Proportionality in the economy is achieved by satisfying the requirements of the basic economic law and also by the steady growth of labour productivity and socialist accumulations. The law of value is also used to achieve the necessary proportionality. At the same time the unin-

terrupted satisfaction of the requirements of society, the growth in labour productivity and socialist accumulation, etc., is effected through the planned, balanced development of the economy.

Let us now investigate the principal requirements of the law of planned, balanced development, bearing in mind its special place in the system of economic laws.

The general requirements of the law of planned, balanced development ensure the necessary relationships in the economy during extended socialist reproduction, in order to expand production and popular consumption as rapidly as possible. The general requirements of this law are typical of all socialist countries and of all stages of communist construction, but due to specific conditions prevailing in different countries at different times these requirements may assume more specific forms.

It would be a mistake to limit ourselves to surveying only general requirements of economic laws, since this is a shortcoming of many theoretical studies and such an approach contributes little to the practical application of these laws. The requirements of economic laws should be investigated concretely and whenever possible be expressed quantitatively. At the present stage of communist construction the law of planned, balanced development and the economic tasks of Soviet economic plans arising on its basis pose the following requirements:

- 1) the rapid building of communism calls for the balanced development of the Departments of social production, and all branches of the economy, as well as for a crisis-free realisation of the social product;

- 2) harmony between accumulation and consumption, between Departments I and II of social production, priority being given to the growth of Department I, so as to ensure the rapid development of production, the introduction of new technology on a large scale, and a systematic increase in labour productivity, to create the conditions for an uninterrupted improvement in living standards. Within Department I, the power, iron and steel, chemical, oil and gas, and engineering industries must be developed quickest of all, because these sections are pivotal to economic growth;

- 3) the establishment of correct relations between industry and agriculture, and a further advance of all the branches

of agricultural production, so as to meet the country's continuously growing requirements for food and agricultural raw materials;

4) a more proportionate distribution of the productive forces among the various regions, the all-round development of regions, and the expansion of construction work in the East. In other words, this requires a rational location of the productive forces within separate regions, rational economic ties between regions and the establishment on this basis of optimal proportions between the development of national economy and transport;

5) an increase in the production of consumer goods to keep pace with the rapidly growing income of the people, notably of animal produce, textiles, garments and footwear (particularly man-made materials), furniture, household machines, building materials;

6) the training of workers, engineers and technicians, agricultural and other personnel in accordance with the economic development of the country and of the various regions;

7) the accumulation of reserves, firstly to obviate the emergence of disproportions and the adverse effects unforeseen circumstances could have on the fulfilment of plans, and secondly to ensure regular, rhythmical production, and to avoid rush-work;

8) the expansion of co-operation with the other socialist countries on the basis of the international division of labour.

This is a far from complete enumeration of the tasks Soviet planned economy must fulfil to achieve proportionality in the economy and planned reproduction. We believe these conditions are objective, and their non-observance will inevitably interfere with planned economic management.

We have remarked above that proportions change as the socialist economy develops. At every new stage of socialist construction, new conditions decide the achievement of proportionality in the economy. What was a proportion at one stage may turn into a disproportion at the next. For example, during the Fourth and Fifth Five-Year Plan periods, the oil industry was considered an advanced industry. Now that the fuel balance has had to be radically changed the level of oil production and processing no

longer meets the new requirements, and must be rapidly expanded.

All this means that a creative approach is required of the planning bodies in studying the law of planned, balanced development and in establishing the necessary proportions in economic plans. Further on in the book we shall learn how difficult it is to study proportions, and how hard the Soviet economists and planning bodies have to work to establish them. A great deal of attention is also given to the study of proportionality in the other socialist countries.

The facts show that Soviet economy develops in keeping with the requirements of the law of planned, balanced development, because the socialist system creates conditions for the study and conscious maintenance of proportionality in the economy.

Economic Laws and Planning

Prior to the economic discussion held in 1951 Soviet literature did not make a clear distinction between the objective need for planned, proportionate economic development and the practical work of state, economic and scientific planning bodies. Moreover, Soviet economists generally identified state plans with objective economic laws. The basic problems of planning have received a scientific, materialist interpretation.

The recognition of the objective nature of the law of planned, balanced development and of other economic laws under socialism requires that a clear distinction be made between the planning activities of state bodies and economic laws. Soviet state plans are only an approximate reflection of the law of planned, balanced development. The identification of planning with positive laws opens the door to subjectivism and voluntarism and tends to discredit political economy as a science.

Yet the fact that planning (politics) is secondary and objective economic laws (the economy) primary does not mean that politics are a silent partner in this union. But since we are investigating the economic aspect of human activity, which in socialist society is organised to achieve desired ends, and this activity is guided by the requirements

of economic laws, politics in this sense, carry more weight than the economy, for they arm and organise the practical activities of the people in socialist society. "Politics," Lenin said, "must take precedence over economics. To argue otherwise is to forget the ABC of Marxism.... Without a correct political approach to the matter the given class will be unable to stay on top, and consequently, will be incapable of solving its production problem either."*

Lenin taught that politics are a concentrated expression of economics, and of class relations. This means that the policy being conducted by the ruling class most vividly reflects the posture of that class, and shows what functions in the existing system of production it strives to consolidate, using to that end all and every means, including the state apparatus.

After the victory of the socialist revolution the proletariat has become both the main productive force of society and politically the ruling class. The interests of the proletariat, the class enforcing the dictatorship for the benefit of all working people, coincide with the interests of the development of the productive forces. The proletariat uses state power for the planned, balanced development of production and the advancement of the country's productive forces. In pursuing its policy, i.e., in its relations with other classes, the proletariat relies on its economic and political power to achieve its fundamental aim—that of building communism.

Revolutionary Marxists believe in resolute and purposive action in conformity with established objective laws—this distinguishes them from revisionists and reformists. Some Yugoslav economists, for example, advocated uncontrolled, spontaneous development. They declared that economic laws operate automatically and that this excludes conscious economic guidance by the socialist state and the Communist Party. They declared that "spontaneous development can only be socialist". In reality, however, planned organisation and the building of socialism are incompatible with spontaneous development.

Marxists-Leninists always maintained that socialist construction was based on objective causes—the level and

* Lenin, *Collected Works*, Vol. 32, p. 83, 84.

the requirements of society's productive forces. They always rejected blind subordination to economic forces, censured passivity and demanded that the proletariat and its Party organise the victory of socialism and communism. Engels said that "it is not, as people try here and there conveniently to imagine, that the economic condition produces an automatic effect. No. Men make their history themselves, only they do so in a given environment which conditions it and on the basis of actual relations already existing, among which the economic relations, however much they may be influenced by the other—political and ideological—ones, are still ultimately the decisive ones, forming the red thread which runs through them and alone leads to understanding."*

Planning is a subjective and conscious activity. It can be successful or otherwise, can further the development of the productive forces or not, and at times can even impede this development. Socialist society guides the planned development of the economy by studying the operation of objective economic laws, and observing their requirements. In the experience of socialist countries, economic plans, which aim to develop large-scale socialist production and raise the living standard of the people, are a mighty weapon in the fight for economic progress. In the socialist countries society uses planning to ensure the balanced development of the economy in conformity with apprehended economic laws. Being a political and social activity, planning must conform with the objective and inevitable course of the economic system's development, otherwise it is doomed to failure.

The planning bodies must be able to distinguish between the objective and subjective, and must give due consideration to the fact that economic laws operate independently of human will. They must therefore adapt their actions to these laws, must study and master them. This arms the planning bodies with the necessary theory, raises their responsibility for the due consideration of the requirements of positive laws in economic plans, and reveals that mistakes in planning are rooted in subjectivism. In the Soviet Union this approach to planning takes the form of public discussions of draft plans and criticism of the planning bodies

* Marx and Engels, *Selected Works*, Vol. II, Moscow, 1962, p. 504-05.

which enables many errors in future projects to be avoided. Only in the light of Marxist-Leninist economics, and only by long-term and overall analysis of economic development, can a correct appraisal of planning activity be made, can shortcomings be revealed and measures be taken to eliminate them.

Economic planning and the economic policy of the Communist Party and Soviet Government are based on science and the laws of social development. The conformity of plans to economic laws is the decisive criterion of their scientific value, of their usefulness to the practical work of Party and state bodies, and of their viability. The most important methodological requirement to be observed when economic plans are elaborated is that drafts conform with economic laws.

Economic laws operating under socialism, amongst them the basic economic law, the law of planned, balanced development, the law of distribution according to work done, and the law of value, function simultaneously and in interrelation. The study of the intricate complex of economic laws and the elaboration of plans in conformity with their operation may be said to comprise the scientific approach to planning. The theory, methodology and method of planning spring from the requirements of objective economic laws and their corresponding economic policies.

It has been mentioned above that the tasks of economic policy and of planning depend primarily on the requirements of the basic law of socialism. Planned socialist organisation of social production, Lenin taught, must be effected by the whole of society for "socialism alone will make possible the wide expansion of social production and distribution on scientific lines and their actual subordination to the aim of easing the lives of the working people and of improving their welfare as much as possible".*

The building of socialism and communism is the practical purpose of planning, while Marxist-Leninist theory of socialism and communism is the scientific basis on which plans are elaborated. All other problems pertaining to planning, those connected with its methodology, and even the most important of them which deal with the establishment

of the correct growth rates for the various economic branches, the provision of proportionality, and the checking of plan fulfilment, are subordinated to the main aim of the plan.

Every plan of the Soviet state—that is the formulation of its main tasks—is intimately linked with the requirements of the basic economic law of socialism and with the tasks of communist construction. The plan raised the material well-fare and the cultural level of the Soviet people. The most important condition for the achievement of the planned targets was the overall growth of labour productivity on the basis of continuous technical progress, and the extensive introduction of advanced science and technology into all branches of the economy. The Seven-Year Plan paved the way for the development of all branches of science, for theoretical research and for great new scientific discoveries.

As has already been pointed out, the practice of planning is intimately linked with the study and application of the law of planned, balanced development. Since proportionality in the economy has an objective nature and depends on the operation of economic laws, state planning bodies must make allowance for the proportionality existing at the time the plans were drafted, and also for the trends forming under the action of the basic law. The planning bodies must provide for the priority development of the production of the means of production in order to ensure the steady growth of social production and technical progress, must ensure an optimal combination of accumulation and consumption, provide for the harmonious development of industry and agriculture, etc.

Failure to take the proportions in socialist economy into account, mistakes in their application, or disregard of the trends in the development of these proportions, may make plans unrealistic, put a brake on economic progress, and result in an unrhythmical production in some economic branches. Conversely, proper consideration of objective economic proportions, and conscious maintenance of proportionality ensure balanced and rapid economic development.

The recognition of the objective nature of proportionality does not mean that a casual and passive attitude should be adopted towards the relationships existing in the economy

* Lenin, *Collected Works*, Vol. 27, p. 411.

at the given time. Knowledge of the laws of social development enables us to influence economic development. Careful attention to the proportions facilitates the establishment of correct proportions, helps to destroy those which have become obsolete and create new ones. The Soviet state radically reorganised the mixed (multi-sectoral) structure of the economy because the development of large-scale socialist industry and collective farming was an objective necessity. This monumental task was carried out successfully because by that time the conditions for the industrialisation of the country and the collectivisation of agriculture had sufficiently matured, and the necessary material prerequisites had been created by earlier development.

As mentioned above, socialist economic proportions are not immutable but change as socialism and communism develop. The changes are proceeding according to plan and are aimed at achieving greater harmony in social reproduction. Technological proportions change especially quickly in connection with the rapid building up of the material and technical basis of communism.

But care must be taken not to violate the basic economic proportions, which define the essence of socialist and communist production, in an attempt to improve them.

Any restoration of capitalist relations between production and consumption without a change in the nature of the socialist system would lead to the emergence of antagonistic contradictions between them.

The law of planned, balanced development makes it possible to plan social production correctly. But it does not exclude the emergence of temporary disproportions in some aspects of socialist economic development.

Deep and irradicable disproportions are part and parcel of capitalist economy, and those between supply and demand; accumulation and consumption, Departments I and II, and town and country have become lasting. As capitalism develops this disproportionality aggravates and can be removed only by destroying the capitalist system. Capitalist production develops anarchically and disregards social requirements, which frequently leads to disproportions between separate economic branches.

Planned, balanced development of the economy is typical of the socialist economic system. Under socialism there can

be no drop in the effective demand of the population, no crises of overproduction, no growth of accumulations due to a drop in consumption, no development of towns at the expense of the countryside, etc. Even so disproportions may occasionally appear in some links of the Soviet economic system.

In taking account of the practical aims of planning, we must give a concrete definition to the term "disproportion". Obviously, we cannot consider (as some economists do) the lagging of one or several branches of Soviet industry behind the corresponding branches in U.S. production a disproportion. Besides, this lag does not directly arrest the development of Soviet economy. It would also be wrong to consider the difference between desired and possible level of production a disproportion, since such wishes do not necessarily coincide with the real requirements of society. A more accurate definition must be made, and must take into full account the economic development of the Soviet Union and the People's Democracies.

A *disproportion* signifies a lagging of one branch behind another resulting in stoppages in reproduction and economic losses. A disproportion can be measured by determining the extent to which capacities are underemployed, the degree to which state reserves decrease below norms, the lack of correspondence between the effective demand and the trade turnover, the quantity of undischarged cargoes and similar concrete data.

What gives rise to partial disproportions in Soviet economy and what is their nature? Disproportions in Soviet economy differ fundamentally from those in capitalist economy both as regards the causes responsible for them and their nature. Disproportions typical of capitalist economy spring primarily from faults in the social system, and result from the militarisation of the economy, the stagnation in the development of some branches, a drop in the volume of production, a fall-off in demand or other similar causes. The partial disproportions in socialist economy are connected mainly with growing pains, with the rapid advance of some economic branches and the less rapid growth of associated branches. In socialist economy disproportions can be discovered and rectified before they conflict with

the development of the productive forces and the relations of production.

Bourgeois engineers considered Russia a country with an organic fuel deficit. Imported coal bulked heavily in tsarist Russia's fuel consumption; Petersburg industry alone was a large-scale consumer of imported coal. After the Revolution the Soviet fuel industry developed rapidly and before the war the economy had become self-sufficient in coal and had even succeeded in creating fuel reserves. After the war the oil and coal industries were rapidly rehabilitated but, owing to the enormous economic growth, it became difficult during the second half of the Fifth Five-Year Plan period to supply industry with fuel. This shortage occurred in spite of the fact that the targets in the plan for coal mining were being fulfilled. There was no drop in fuel output and certainly no stagnation. The failure of this branch to meet growing demand was due to teething troubles in coal-mining, due primarily to the difficulty of raising the coal yield in the Donbas quickly. The state took measures to accelerate the growth of the fuel industries, especially the oil and gas industries, and the shortage was soon overcome.

Let us take another example. In 1933 it appeared that Soviet railways were unable to cope with the demands placed on them by the economy. In 1932 the freight turnover grew at a slower pace than it had in the preceding period, and in 1933 the increment was extremely low. The growth rates of rail freightage had to be sharply increased. The measures taken to this end resulted in an immediate freightage increment in 1934, and in 1935 it was 2.6 times higher than in 1930-31. The railways thus stopped being a bottleneck and no longer obstructed economic development.

In studying partial disproportions in the Soviet Union it should be remembered that different growth rates in the different economic branches are largely historically determined. Not long ago we had to rest content with the low level of development of some consumer goods industries. In the interests of overall industrialisation the Communist Party was forced to accelerate the development of heavy industry and could not ensure the rapid growth of light industries.

Mistakes in the organisation of the economy and particularly in economic planning can become responsible for the emergence or intensification of difficulties and partial disproportions in the Soviet economy. The September (1953) Plenary Meeting of the Party Central Committee pointed out that faults in the management and planning of agricultural production were one of the main reasons for the lagging behind of a number of important branches of agriculture.

The influence of nature should not be disregarded when we consider partial disproportions in agriculture. Meteorological conditions play a vital role in crop farming and unfavourable weather conditions may cause a substantial decrease in the harvest of some crops, especially those cultivated on relatively small and compact areas. A crop failure may thus become responsible for a raw material shortage in the industries processing industrial crops. For example, a bad cotton harvest resulted in difficulties for the textile industry.

The Soviet state uses reserves to obviate partial disproportions. Marx predicted that the relative overproduction of raw materials as compared with the output of finished goods, of the elements of fixed capital as compared with the expansion of production, i.e., the creation of certain reserves at all stages of production, would become a means for the deliberate control of production by society. "This sort of overproduction," he said, "is tantamount to control by society over the material means of its own reproduction."*

Reserves or stocks have been accumulated under all modes of production but their size, the methods by which they have been formed, and the manner in which they can be used, differ depending on the economic structure of society. Under capitalism stocks accumulate at random—as the result of overproduction. This is easily understood if we consider that they form because the effective demand of the community lags behind the development of production. The surplus output therefore becomes a burden on the economy. Besides, under capitalism individual capitalists or groups of capitalists decide the nature and quantity of all stock;

* Karl Marx, *Capital*, Vol. II, Moscow, 1961, p. 469.

obviously, they will correspond with true social requirements only in exceptional cases and then by sheer fluke. Private ownership robs the stocks in capitalist society of their mobility and prevents them from being used on a social scale. The reserves of foods and industrial consumer goods accumulating during crises are an indication not of the wealth but of the poverty of capitalist society, since these reserves are the result of a drop in the effective demand of the working people. During crises an enormous amount of reserve stocks are deliberately destroyed to prevent a price-drop and a decrease in the profits of the capitalists. The formation and use of reserves in capitalist society involves large non-productive outlays, which society is forced to pay as a tribute to private property.

Under socialism reserves are used as an economic lever to balance the economy with the requirements of the law of planned, balanced development. The Soviet state accumulates reserves of raw materials, certain equipment, finished goods and money, and organises the training of labour reserves. Planned economy enables the Soviet state to establish the correct size of reserves.

Reserves are not an end in themselves; the reserves formed and stocked must conform to a preliminarily established norm or quota. From a purely economic point of view these reserves must compensate for occasional deviations from the plans for the development of the separate economic branches. Unfavourable natural conditions may become responsible for such deviations, but since such contingencies are estimated with a sufficient degree of accuracy, the stocks set aside for this purpose are usually adequate.

Since there are aggressive forces in the capitalist countries the Soviet Union is forced to build up reserves to counter possible imperialist aggression.

The laying in of reserves is one of the most important aspects of the state's economic policy. Such reserves demand a far lower outlay under socialism than they do under capitalism, since under socialism stocks are formed not as a result of crises of overproduction—there are no such crises—but in a centralised manner, which takes all actual requirements into account. In socialist society reserves are

much more mobile and are used far more efficiently than they are in capitalist countries.

The way in which labour reserves are created clearly illustrates that socialist and capitalist production is diametrically opposed. A permanent army of unemployed constitutes capitalism's labour reserves. This army is inexhaustible and provides the capitalist with workers if and when he needs them. The existence of these reserves is a striking example of the heartlessness of the capitalist system, which condemns a large portion of the population to enforced idleness.

Socialism is incompatible with an exploitative attitude towards the workers. Under socialism there is no unemployment and labour reserves are created by training young people at state expense. By the time these youngsters reach a working age they are skilled workers able to apply their knowledge in the most important economic branches. This system of training workers for the key industries began in 1940 and is extensively applied at present.

While thorough study of the requirements of the basic economic law and the law of planned, balanced development is especially important for the methodology of planning, this does not mean that other economic laws can be ignored. Planning must consider and utilise all the laws operating under socialism, and by satisfying the requirements of these objective economic laws must strive to achieve maximum effect. Planning also makes wide use of the conclusions furnished by the natural sciences, and takes into account the laws dictating the development of the technology of social production. The economic plan also provides for the development of productive forces and production relations. This means that planners must apply the achievements and conclusions of both social and natural sciences.

The progress of Soviet planned economy shows that the planning bodies are taking account of the requirements of objective laws and that these requirements are duly considered in the setting of targets. At the same time plans do not always fully correspond with the requirements of objective laws. Why this discrepancy?

Before answering this question let us determine the yardstick for a divergence of the requirements of objective laws

from planned projects. In real life the emergence of economic disproportions indicates that the requirements of the law of planned, balanced development have been violated. But how can we discover such defects in a plan? The lack of a balanced co-ordination both in the plan and in reserves, points to some defects. But the test of a plan is in its practice, and its shortcomings appear in the course of its fulfilment.

It should be borne in mind that non-economic reasons are often responsible for deviations from planned targets. Thus the harvest depends on natural conditions, the work of hydropower stations and river transport on the debit of rivers, the fish haul on changes in the location or migration of the shoals. In these instances the non-fulfilment of the plan for agricultural output, fish catch or output of hydro-electric power, cannot be considered a violation of the law of planned, balanced development. The planners are obliged to consider the negative consequences natural forces may exert but they cannot control them, for nature lies outside the influence of economic laws.

But even if we exclude the effects natural forces have on the fulfilment of the plan and consider a theoretically ideal case, the extent to which the plan has been over- or underfulfilled will still not fully show the degree to which the plan has deviated from the requirements of economic laws. Even if the planners have a perfect knowledge of the requirements of objective laws, they are not always able to satisfy these requirements fully in the plan. This means that to be able to measure the deviation of the plan from the requirements of objective laws and to establish the cause responsible for these deviations, a thorough analysis must be made in every single instance, failure of which may easily lead to gross errors in the future.

Speaking of the causes for the deviation of plans from the requirements of economic laws, we must not overlook defects in the work of the planning bodies. Within the framework of the general requirements of objective laws, planners are afforded a wide choice of concrete aims and methods for the achievement of these aims.

A thousand and one problems must be considered when plans are drafted, and this naturally makes it extremely difficult to avoid defects and shortcomings. Obviously, even

the most thorough theoretical study of economic laws and their operation is not enough to guarantee adequate planning. It is difficult, for example, to study concrete proportions in the economy, and it is even more difficult to project them. The drafting of an economic plan concerns the forecasting of future events. Planners must therefore never lapse into a satisfied complacency with established precepts but must work on new rules and solve the numerous problems arising while the plan is being drafted.

Economists rightly declare that there is a direct connection between the growth of the labour productivity and the incomes of the working people (consumption). In present-day conditions there can be no considerable expansion of production and accumulation unless labour productivity grows at a more rapid rate than wages. History shows what relations formed between labour productivity and labour remuneration in the past, and from this economists are able to forecast what form they will assume under definite conditions in the future. When plans are drafted concrete decisions must be taken as to how much the growth in labour productivity should exceed the growth of wages in the prevailing economic conditions—difficulties which no scientific treatise can foresee. Each time this complicated problem must be solved anew, and each time the consideration of many variables is involved.

Engels warned against a simplified interpretation of the operation of economic laws. He said that "none of them has any reality except as approximation, tendency, average, and not as *immediate* reality. This is due partly to the fact that their action clashes with the simultaneous action of other laws, but partly to their own nature as concepts."^{*}

The correlation of objective laws and plans is a particular aspect of the important problem about the limits and reliability of cognition. An economic law is an objective truth, the plan—a subjective idea of objective laws. Planners will be able to achieve correspondence of plans with the requirements of objective economic laws only if they base their work on Marxist-Leninist theory and extensive planning experience.

^{*} Marx and Engels, *Selected Correspondence*, Moscow, 1965, p. 482.

No matter how great the difficulties in planning, society cannot remain indifferent to mistakes made by planners. Relevant government and Party bodies supervise the work of the planners, censure their shortcomings and help them organise their work efficiently. During the post-war years the Central Committee of the C.P.S.U. and the U.S.S.R. Council of Ministers took numerous steps to improve planning. Improvements in planning were on the agenda of the Plenary Meetings of the Central Committee of the C.P.S.U. and Party congresses and the sessions of the U.S.S.R. Supreme Soviet.

Serious faults were revealed in the work of the planning bodies and it was pointed out that the planning bodies were not paying sufficient attention to the situation in the individual branches. Moreover they failed to establish close ties with organisations and institutions on a local level, committed serious blunders in the drafting of plans for production, capital construction and material and technical supplies and were not thorough in checking the fulfilment of state plans.

There were cases when unrealistic production plans were handed down to some industries, when funds were scattered over numerous construction projects and there were far too many uncompleted building projects. In some cases there was a lack of correspondence between production and construction plans on the one hand, and the plans for raw material supplies on the other.

Mistakes in planning were responsible for an ineffective use of government funds, interfered with the balanced development of individual economic branches and inflicted serious damages to the economy.

Intensive study resulted in a reform in the management and planning of industry and construction and an improvement in the planning of agricultural production.

The first lesson to be drawn from the theory of planning is that state planning depends on the requirements of objective economic laws. But planning practice helps to test our ideas about economic laws and adds enormously to economic science.

Obviously the law of planned, balanced development cannot be studied without a simultaneous study of the practical experience gained in the drawing up and fulfil-

ment of economic plans. The requirements of the law of planned, balanced development can be discovered in time only through the close co-operation of economist-theoreticians and planner-practicians.

Application of the Law of Value in Planning

The question of how the law of value operates in socialist society and how it should be applied in economic planning has been the source of much controversy in economic theory.

While the theory is being widely debated, the practice of the economic management bodies concerned with manifestations of value remains empirical.

The role of the law of value in the development of socialist economy was underestimated for a long time both in the theoretical and practical work of Soviet economists, and some aspects of this problem were silently ignored. Only in recent years has a serious study been made of problems of value and cost, economic accounting (operation on a self-supporting basis) and profitability in collective farms. This proves that the problem has as yet been insufficiently studied and the lack of any reliable precedents places economists who are writing on problems connected with the theory of commodity production and value in a socialist economy in a difficult position. For the law of value to be applied consciously and effectively, a thorough study must be made of many important specific subjects. This book deals only with general methodological problems connected with the application of the law of value in economic planning.

The socialist revolution inherits from the capitalist system developed commodity-money relations. Objective conditions for the manufacture of commodities and for the operation of the law of value remain in force during the transition period to socialism and in the socialist society itself. During the transition period commodity production and the law of value continue to exist, but under the influence of the socialist sector of the economy they begin to play a positive role. They are used particularly to link the development of state industry with the peasant econ-

omy and promote the socialist reorganisation of small-scale commodity farming by combining public and private interests.

Socialist society cannot ignore the laws of commodity production but must apply them in economic practice. Under socialism the relations between the classes of socialist society—the working class and the peasantry—are linked by commodity production. But socialist commodity production is of a special kind. Under socialism labour power is not a commodity and therefore there is no surplus value. Private property, which in conjunction with the division of labour forms the basis of capitalist commodity production, is destroyed, and the old division of labour is gradually abolished. Under socialism all labour is directly social; society is able to take stock of its labour resources and to distribute them between the various branches according to requirements. It is able to achieve the necessary proportionality in a planned and deliberate way.

The predominating mass of the means of production is public property and is not distributed among the members of society. Communal services, public buildings, theatres, clubs, hospitals, outpatient clinics, schools and other social and cultural institutions are not for sale. Land, too, cannot be bought and sold under socialism. Cultural services and amenities are dispensed by the state free of charge (education, health services).

Although commodity production exists under socialism there are no capitalists and no small-scale commodity producers, and, for this reason, no capitalist production. In socialist society the law of value and competition do not act as regulators of production, they yield this role to the law of planned, balanced development.

Under socialism commodity-money relations have historico-relative validity; under communism there will be neither commodities nor money. Economists who speak of an eternal law of value, call it the law of labour expenditure, or interpret it as the elementary law governing the cost of production and distribution of products under any mode of production, quarrel with the most important requirement of Marxist political economy—historical truth.

The gradual disappearance of commodity production and of the law of value, does not mean that future society

will lose all interest in the accounting and saving of labour. On the contrary, it will have to keep an even stricter account of labour consumption and balance it with effective returns. It is in this sense, and only in this sense, that the founders of Marxism speak of "value" under communism. Engels declares: "Balancing of useful effects and expenditure of labour on making decisions concerning production was all that would be left, in a communist society, of the politico-economic concept of value."* Marx holds the same view. He says: "After the abolition of the capitalist mode of production, . . . the determination of value continues to prevail in the sense that the regulation of labour-time and the distribution of social labour among the various production groups, ultimately the book-keeping encompassing all this, become more essential than ever."**

On another occasion he declared: "The saving of time, and the proportionate distribution of labour time among the various branches of production remains the basic economic law of collective production. In fact, it becomes even more of a law."***

The gradual disappearance of commodity economy is a long and complicated process and whilst that process unfolds, some forms of commodity production must be consciously maintained. The dialectics of this process involve a strengthening of Soviet trade and fiscal economy throughout the socialist stage of development.

Two opposing trends live side by side and affect the evolution of commodity-money relations during the gradual transition from socialism to communism. One of them consists of the development of commodity-money relations in collective farms and between collective farms and state enterprises, and the development of commercial ties between the Soviet Union and other countries; the other—in the development of communist forms of distribution—free children's institutions (crèches, schools, boarding schools), public health services, social security and other free social services. Both trends are important in determining the future of commodity production and commodity-money relations.

* Engels, *Anti-Dühring*, Moscow, 1959, p. 427.

** Karl Marx, *Capital*, Vol. III, p. 830.

*** Marx and Engels, *Archive*, Vol. 4, p. 119, Russ. ed.

In the past economists underestimated the role of the law of value in the development of collective-farm production and in the relations between collective farming and state economy. During the past few years a number of measures have been taken to make value a lever in the development of collective-farm production and in the expansion of commodity-money relations. These included the sale of agricultural equipment to collective farms, the payment to farmers of a larger share of their incomes in cash, the increase in state purchasing prices, etc. As collective-farm output grows, taxes are gradually being replaced by the purchase and sale of farm produce on the open market at prices which reflect the level of production and of the labour productivity.

It may be argued that the expansion of the sphere of commodity production and exchange makes for an uncontrolled development of agriculture.

Commodity-money relations in collective farms are developed in conditions where the volume and pattern of agricultural production and its location are stipulated in state plans. The increased monetary income of the farmers, resulting from the upswing of collective-farm production, goes hand in hand with a planned extension of the retail trade and the increase in the money accumulations of the collective farms, and is used by them according to plan for the purchase of equipment and fertilisers, and for the construction of production buildings and cultural and service establishments.

The development of commodity-money relations is used by the Soviet state to strengthen the planned management of agriculture and to consolidate socialist production relations. The development of collective farms is directed according to plan along the road to communism, thus raising the collective co-operative form of property to the level of the property of the whole people—an important premise is being created for the gradual disappearance of commodity production.

As commodity-money relations expand, an opposing trend develops within the socialist economy: an ever increasing share of the national product by-passes the market and reaches the population free of charge. The extension of free public maintenance of children, students, the sick,

invalids and the aged naturally contracts the sphere of commodity and money circulation and brings nearer the full domination of communist forms of distribution.

Value indices are universally applied in socialist economy. The output of state industry and agriculture, production outlays, distribution and exchange of output on a national scale, remuneration of labour and general consumption are calculated in monetary terms. But under socialism the money and commodity categories have a fundamentally different content than under capitalism.

In a socialist society value indices do not express the production relations of individual producers but are used for the accounting of directly social labour and social requirements. Accounting and calculation in terms of value has to do not only with the law of value but also with the law of saving labour time, the law of the steady growth of the labour productivity and the socialist principle of distribution. Many economists who speak of the growing importance of the law of value under socialism, do not seem to notice this.

The old value form of accounting and calculation is used under socialism for two reasons: first, in socialist economy commodity and non-commodity production must be accounted in identical and commensurable units; and second, this form is historically established, i.e., is customary. All economists account products of labour which are not bought and sold in value terms.

But, even though accounting in terms of value is universal, it is not necessarily the ideal form, and has, in fact, a great many serious shortcomings. The accounting in terms of value of the gross output of various enterprises conceals the non-fulfilment of the planned assortment; and the rapid growth of the gross output of an enterprise, processing expensive raw materials, may conceal the much too small increase in the net output of that enterprise. When the labour productivity is computed on the basis of the gross output, after changes in assortment or the location of the enterprise have been made, the gross output per worker does not give a clear picture of real processes, etc. All this is valid even when price and value coincide ideally.

Another reason making value an imperfect measure of economic activity is that it changes rapidly as a result

of the growth of labour productivity. When the 1949 reform of wholesale prices in industry was underway, it was intended to account production in current prices, i.e., more or less according to value, while the physical volume of production was to be accounted on the basis of the index for changes in current prices. Rapid and irregular price changes foiled this attempt; and it became necessary to use not current but weighted (stable) prices for planning and accounting the gross output.

Accounting in terms of value is very complicated for it must satisfy not only the requirements of the law of value but also those of other economic laws with which economic management is concerned. This has given rise to the practice of dual accounting of the principal indices of economic development—in real (current) prices, which reflect changes in value, and in physical form, and also in stable prices, which show the dynamics of the physical volume of the gross output, national income, etc. It is up to accountancy to simplify and perfect accounting in terms of value.

But we must not regard the use of the old forms of accounting in terms of value as an insurmountable obstacle. Paraphrasing the words of Lenin, we may say that the content of our work is so strong and powerful, that it can and must assert itself in all forms, be they old or new, and make them an instrument for the complete, final, decisive and irrevocable victory of communism.

In planned economy the law of value is used for many purposes. It is used to influence commodity production and the exchange of commodities by economic levers such as money, price, wages, bonuses, cost, economic accounting, profit, credit and budget; value forms are used for the accounting of production, distribution, exchange and consumption in the economy as a whole. The law of value is applied in many forms in the interests of socialist and communist construction and is prevented from acting spontaneously.

We believe that the use of economic levers in planned economy is dictated not only by the law of value but also by the other economic laws. Let us take wages, for example. They are linked with the law of value: accounts of them are kept in terms of value, workers spend a large

share of their wages on purchases of goods produced by state enterprises, the value and price of which are regulated according to plan. But wages are affected to some degree by the prices on the collective-farm market, which may not fall in with those laid down in state plans. This, in the main, describes all the links of wages with the law of value.

But the main thing is that under socialism labour power is not a commodity and has no value, while wages ensure not only the reproduction of labour power but also a systematic improvement of living conditions. In the Soviet Union the remuneration of labour is determined not by the law of value, but by the fundamental economic law, in accordance with the socialist principle of distribution that states—to each according to his work.

This in no way diminishes the importance of economic levers in the organisation of socialist economy. On the contrary, greater material incentives for workers, the increased role of profits in the economic activities of enterprises, better organisation of economic accounting, etc., are all important premises for the successful fulfilment of plans for communist construction.

One of the most complicated tasks of economic science in general, and of the planning bodies in particular, is to use the law of value and commodity-money relations in the interests of planned economy. The conscious use of the law of value in planning is connected primarily with the planning of commodity production and distribution, the planning of production and distribution costs, and also with the planning of prices.

Planning of commodity production and of the volume of state and co-operative trade, is possible only because the bulk of these commodities is produced in socialist enterprises, and the bulk of the population's income (i.e., their effective demand) consists of easily accounted payments by state organisations and enterprises.

Under capitalism the purchasing power of the community is a mysterious and incomprehensible phenomenon, impossible to be determined precisely in advance. It is impossible to determine what and how much will be bought by the many enterprises, what will be earned and bought by all classes of the community. In a bourgeois society

production, the incomes and the demand of enterprises and of the population as a whole depend on a vast number of factors, all of which are acting blindly and without the control of producers and consumers. The result is that the spontaneous interaction of the many forces is manifested only in the outcome, which is all too often a tragical one.

In a planned economy both the effective demand and the necessary amount of goods can be precisely determined for a year or more in advance. The balance-sheet of the income and expenditure of the population enables the planning bodies to establish correct proportions between the effective demand of the population and the volume of trade.

This can be done because market relations are allowed much less leeway under socialism than under capitalism and are therefore much easier controlled. Socialist enterprises do not need an open market to realise their output and to buy raw materials; they realise their goods and receive supplies according to material and technical supply plans. The demand and supply of commodities on the Soviet market is accounted and planned by society.

In the Soviet Union goods are produced and sold mainly by socialist enterprises. Close on 95 per cent of the total retail trade in the Soviet Union is conducted by the state and co-operatives. Production, realisation and the price of these goods are planned by state bodies. The share of the collective-farm market in domestic trade is only 4.7 per cent. No less than 95 per cent of population's incomes spent on the socialist market is paid by the state and socialist enterprises and can therefore be planned.

The practice of planning state and co-operative trade in the Soviet Union has shown that the total volume of commodity production laid down in the plan corresponds to social requirements and the purchasing power of the population. This means that the labour expended on the production of commodities is recognised as socially necessary labour and is fully compensated for by the buyer through the mechanism of the market. Since the volume of the commodity supply and prices, on the one hand, and the incomes of and commodity consumption by the population, on the other, are determined according to plan, sup-

ply and demand play a minor role in regulating trade. The planned estimation of labour expenditure on the production of individual items is not given recognition by the market in exceptional cases only (i.e., these items do not find a buyer), in which event the estimation is adjusted in the course of plan fulfilment—prices for certain goods are either lowered or raised. In these cases it is usually discovered that there existed a contradiction between use value and value.

Planning of the cost of commodities, their quantity and quality, the fixing of prices in accordance with the value of commodities and of the general volume of trade in accordance with the effective demand of the population, in conditions when the living standards of the population are steadily growing, excludes the blind operation of the law of value and price fluctuations from the socialist market. At the same time the planning of trade and particularly of retail prices continues to be an extremely complicated problem. Planning of trade (the circulation of commodities and their supply in conformity with the money incomes of the population) is important also in solving problems of consumption and the division of the national income into accumulation and consumption.

The collective-farm market is far less regulated than state and co-operative trade. The amount of commodities marketed by collective farms and collective farmers can be estimated only approximately, and it is also more difficult to forecast the demand for collective-farm produce. The harvest, which is highly dependent on natural forces, also exerts a telling influence on collective-farm trade, an influence that cannot as yet be predicted with any degree of accuracy. Last but not least, the law provides for the sale of commodities on the collective-farm market at prices determined on the basis of supply and demand.

It might be argued that this could lead to uncontrolled spontaneity in the operation of the law of value. But the amount of goods sold on the collective-farm market is comparatively small and is economically dependent on the price dictates of state and co-operative trade. Besides, sales conducted by the collective farms (as distinct from sales by collective farmers) become increasingly important on the collective-farm market, and the quantity and prices

of the goods they are selling can be regulated by adjusting the prices of consumer goods bought by the collective farms and also by expanding the state food trade.

The following figures show the economic dependence of the collective-farm market on state and co-operative trade and the trends of its development. Between 1950 and 1958 the output of grain and meat intended for sale (marketable output) increased by about 70 per cent and the index of the physical volume of sales on the collective-farm market was 104, while the price index was 95. During the same period the index for food prices in state trade dropped to 68. This shows that the collective-farm market develops slower than the marketable agricultural output grows, and that its role is therefore diminishing. The prices of the collective-farm market follow the prices of state trade, even though this relationship is not a direct proportion.

The subordinated position of the collective-farm market shows that the law of value exerts only a limited influence on the distribution of the collective farmers' labour between the various agricultural sectors. To a great extent the volume of collective-farm production is adjusted directly to social requirements, while the expenditure of socially necessary labour and its distribution between the various branches is regulated by the law of planned, balanced development.

Trade on the socialist market is a circulation of use values and values; its volume depends on the amount and price of available goods. The fact that trade proceeds normally and without crises, and grows systematically while the purchasing power of the ruble steadily mounts, proves that the requirements of the law of value are observed in socialist planned economy and that it is skilfully applied both in organising commodity production and in price regulation. Prices have a particularly important part to play in trade—they greatly affect the relations between the classes of socialist society.

What requirements of the economic laws must be taken into account when prices are planned and regulated?

Since prices are dictated by value, it obviously follows that the requirements of the law of value must be strictly observed. One of the requirements of the law of value can

be formulated as follows: the sum total of prices for all commodities must equal the sum total of their value.

The sense of this requirement is that only when such balance exists can commodity producers sell newly created value, reproduce all the elements of production and continue it on the previous or on an increased scale. In society where private property is dominant the equality between the sum total of prices and the sum total of value establishes itself through competition and the supply and demand situation. In socialist economy it is achieved by calculating the production costs and commodity turnover and by stipulating them in the plan.

In socialist society, too, a violation of this requirement would have an adverse effect on the economy. If the sum of prices were to exceed the sum of values, there would be a surplus of money in circulation and the scale of prices would change. Neither could social production function normally if the sum total of commodity prices was lower than the sum total of value. In that case a part of the commodities would to all intents and purposes be distributed free of charge and the reproductive resources would be squandered.

But the law of value demands that there be a balance not only between the sum total of the prices of all commodities and their values but also that the price and value of every commodity should coincide. Marx said that "the exchange, or sale, of commodities at their value is the rational state of affairs..."*

Only in simple commodity economy does an exchange of goods according to their values or close to them, take place. Under capitalism the balance required by the law of value between the price and the value of each commodity, is effected only by spontaneous mass deviations from the common rule and the transformation of value into the price of production. Competition modifies the law of value into the law of production cost. The inevitable result is a lack of correspondence between value and price. In the branches where the organic composition of capital** is

* Karl Marx, *Capital*, Vol. III, p. 184.

** The composition of capital according to its value—the relation of constant capital to variable capital.—*Tr.*

above average, the prices of commodities are higher than their value, whereas in branches where the organic composition of capital is below average, prices drop below their value. The deviation of the price of production from value plays a progressive role because it forces producers to raise the productivity of labour and to lower all production costs.

The lack of correspondence between prices and values is inherent in the price-form, in its connection with the conditions under which commodities change owners. This phenomenon was noted by Marx: "The possibility, therefore, of quantitative incongruity between price and magnitude of value, or the deviation of the former from the latter, is inherent in the price-form itself. This is no defect, but, on the contrary, admirably adapts the price-form to a mode of production whose inherent laws impose themselves only as the mean of apparently lawless irregularities that compensate one another."* This means that even though in conditions of free competition under capitalism, the sum total of values (prices of production) is equal to the sum total of prices, this equivalence will apply only to the commodities produced in branches with an average organic composition of capital, while the commodities produced in other branches will sell either above or below their value.

Under socialism the price-form, allowing for a lack of correspondence with value, is used as a lever to change economic proportions in a planned way. The Soviet price policy differs fundamentally from the price policy of capitalist entrepreneurs and monopolies. It is governed by the fundamental economic law of socialism and the law of planned, balanced development.

At the same time Soviet price policy takes full account of the requirements of the law of value. An increase in labour productivity lowers the value of commodities and makes for price cuts. Planned prices are effectively used to solve the general tasks of planning—the building of socialism and communism, industrialisation, the accelerated development of backward economic branches, the raising of living standards, etc. The wide use to which

* Karl Marx, *Capital*, Vol. I, p. 102.

prices are put in economic regulation makes it necessary to solve price problems in the various economic branches conjointly, i.e., to take into account the prices of goods in other branches by establishing an aggregate system of prices. The practice of price fixing in the Soviet Union proceeds from the premise that a deviation of the prices of certain goods from their value is admissible and necessary.

If prices fully corresponded with values this would mean that products were distributed among the members of society in proportion to their particular wage funds. The Soviet price system is based on value, but promotes the distribution of product for society in conformity with the tasks of communist construction. Soviet price policy proceeds from the fact that at the present time there are real possibilities to establish correspondence between accumulation and consumption, to fix the necessary proportions between industry and agriculture, heavy and light industry, and to increase the welfare of the population. Any other price system would impede the formation of the proportions which characterise the present stage of socialist society's development. Full correspondence between price and value would simplify the accounting of the aggregate labour expenditure and make it easier, firstly, to transfer enterprises to the economic accounting principle and, secondly, to calculate the efficacy of new equipment, but it would rob prices of their active substance and preclude the law of value from reinforcing the law of planned, balanced development.

The Soviet Government used prices as an economic lever at all stages of socialist construction. Prices helped expropriate a part of the accumulations of the capitalist classes, helped accumulate funds for industrialisation, and during the war maintained the necessary level of consumption among the population. It is constantly necessary to redistribute the national income through the medium of prices. It would be entirely unrealistic to imagine society as something petrified, concerned only with distributing to the producer the full product of his labour and ensuring the growth of all branches and enterprises at an identical rate. Society cannot tolerate high labour expenditure. Planning does not establish prices on the basis of the

actual cost or value of commodities, but provides for their lowering.

Soviet prices must be equal to value, must compensate for production outlays, stimulate a decrease of these outlays, and ensure adequate profits. But to achieve an adequate profit margin it is not necessary that the price of every commodity or of commodities produced in all branches be equal to value or "prices of production". It is the task of the planning bodies to distribute the social product so that it creates a centralised accumulation fund, and at the same time ensures accumulations in the economic branches high enough to give producers incentives to develop production.

Some economists are inclined to regard the price formed according to the formula "cost plus adequate profit" as an arbitrary price. True, the size of the profits being made by the producer is dictated by the planning body. The planning body takes the production outlay (cost) into account and then distributes the social product in the interests of all members of society. But this is not a mechanical distribution in proportion to the labour expenditure or the value of the fixed and circulating assets, for it takes into account the interests of society as a whole, and includes the provision of material incentives for workers.

No great mental effort is needed to understand that since production outlay is taken into account, prices are not independent of value and cannot be arbitrary. Besides, the conscious application of the law of value excludes automatism in the distribution of the consumer product. The basic mistake made by the planning bodies in fixing prices is non-compliance with the above principles, and not, as might be thought, the failure to fix prices strictly at value (or cost of production).

Wholesale prices and tariffs are gradually becoming obsolete. Many of them no longer correspond to real production outlays, and ignore technical progress, the rise in labour productivity and the resulting cost reductions. The price system must be constantly improved without nullifying or lessening its role as a regulator of production. The price system must be flexible, and must rapidly react to changes in value and new tasks in economic policy.

In the recent debates on the law of value, prices of the means of production gave rise to unfavourable criticism. In a number of cases these prices really are much lower than is economically justified and should therefore be changed. It would also be expedient to make cost reductions serve the purpose of raising the profitability of enterprises and making them more interested in accumulating profits. Soviet heavy industry should now be able to finance its capital investments and supplement its circulating assets out of its own accumulations. Fundamentally, however, the principle of relatively low prices on many means of production is economically sound. Since means of production are neither bought nor sold on the open market, there is no competition, and supply and demand cannot serve as a criterion of their prices. Only relatively low prices of producer goods are able to promote cost reductions, make enterprises strive to lower the socially necessary expenditures and place enterprises which save on production outlays in a more favourable position.

Low prices are fixed for many means of production in the Soviet Union to accelerate mechanisation and automation, or in a broader sense, to enlarge the amount of equipment available to each worker. Let us stop to consider the prices of various means of mechanisation, including farm machinery. If the prices for means of mechanisation were higher than they are—were proportional to the labour expended on them—there would be cases when collective farms would consider it more profitable to use manual labour than machines. A price policy that insists that prices be equal to value would in effect render the economy a disservice.

The present practice of fixing prices for means of production and consumer goods also facilitates the centralisation of accumulations by the state and stops these accumulations from being scattered among many enterprises.

The present readjustment of wholesale prices aims to strengthen the role of prices in the development of socialist economy and raise the efficiency of social production. To achieve these objectives it is necessary:

a) to balance prices as closely as possible to the socially necessary expenditure of labour. This will enable enter-

prises to recoup normal production outlay and form a sizeable enough profit to ensure payment for the use of production assets and to create funds for the enterprise (material incentive funds, funds for social and cultural measures and housing, production development fund);

b) to establish a correct correlation of prices of products that can be mutually substituted and thus create incentives for the more progressive branches.

Party and State Approach to Planning

Economic planning is the means by which the Communist Party and the Government conduct their economic policy; the special role played by the socialist state in the economic life of the community enables the planning bodies to direct economic development along desired lines. For the economic activities of the state to be successful, they must be based on the conscious application of economic laws, and the Soviet state intervenes in the economy to enable these laws to operate to their fullest possible degree.

The Communist Party is the guiding force in all state and public organisations. It guides the political, economic and cultural life of the country and arms the people with progressive ideology in the struggle for the triumph of communism. In laying down the economic policy of the Soviet state, and in directing its implementation, the Communist Party defines the tasks of economic planning.

Lenin always stressed that planning was one of the key tasks of the Communist Party. Planning is a party matter, a most important concern of the Communist Party and one closely linked with its programme. This lends an ideological essence to planning, and makes it a matter of principle.

Speaking of the electrification plan, Lenin said: "In my opinion it is the second programme of our Party.... Our Party programme must not remain solely a programme of the Party. It must become a programme of our economic development, or otherwise it will be valueless even as a programme of the Party. It must be supplemented with

a second Party programme, a plan of work aimed at restoring our entire economy and raising it to the level of up-to-date technical development. Without a plan of electrification, we cannot undertake any real constructive work. When we discuss the restoration of agriculture, industry and transport, and their harmonious co-ordination, we are obliged to discuss a broad economic plan. We must adopt a definite plan. Of course, it will be a plan adopted as a first approximation. This Party programme will not be as invariable as our real Party programme is, which can be modified by Party congresses alone. No, day by day this programme will be improved, elaborated, perfected and modified, in every workshop and in every volost. We need it as a first draft, which will be submitted to the whole of Russia as a great economic plan...indicating how Russia is to be placed on the real economic basis required for communism."*

These direct links between planning and the Party Programme were reaffirmed by the Twenty-Second Party Congress. In approving the new Party Programme, the Congress linked it with the long-term plan for communist construction in the U.S.S.R.

The fact that the Party is guided in its economic policy by the advanced theories of Marxism-Leninism, explains the success of the economic policy, and in particular of planning. The activities of the Party are guided by a scientific programme, based on analysis of the historical trends of social development and positive sociological and economic laws, which explains to the people the ends pursued and the means by which they will be attained.

The policy conducted by the Communist Party is a fight for the fundamental interests of the working class, working peasantry and labour intelligentsia, for the building of communism. The development of the modern productive forces along the road to communism is in full accordance with the basic interests of the working people. This explains the enormous attraction of the Party's ideas and its leading role in the economic life of the country. Party ideas are based on scientific premises and coincide with the vital interests of the working people. Furthermore

* Lenin, *Collected Works*, Vol. 31, p. 514, 515.

powerful Party organisations are implementing this programme and are closely linked with the general public. This strengthens the links of revolutionary ideas with revolutionary practice in the struggle for the overthrow of the exploiting classes and promotes the building of a new society.

Ever since the Soviet Union launched planned socialist construction, the Communist Party has inspired and guided the work of the planning bodies. Economic plans are worked out under the guidance of the Party. Important questions concerned with planning are discussed at the Plenary Meetings of the Party Central Committee and at Party conferences and congresses. The Central Committee of the Communist Party takes charge of the organisation and implementation of plans.

The history of Soviet planning is inseparably linked with the activities of the Party and its struggle for the building of socialism. Party resolutions and documents tell of the difficulties that had to be overcome for the creation and development of a planned socialist economy in the Soviet Union (see Chapters II and III).

The Communist Party also plays an enormous role in organising the people for the fulfilment of plans, in discovering and mobilising reserves to accelerate economic growth, raise labour productivity and improve general living standards.

Mere awareness of the laws of economic development is not enough to implement the sweeping programme of communist construction. Engels said that "social action" was needed to subject society's productive forces to conscious control. Lenin rightly declared that politics involved millions of people. To carry out the vast policy expressed in the economic plans, tens of millions of people must be organised for persistent and long-term work.

The plans for socialist construction cannot be fulfilled in a haphazard manner, but demand constant, organised struggle to overcome the countless difficulties which beset them. The Party mobilises the people for the struggle, and helps them to overcome all obstacles. This is one of the main aspects of the Communist Party's organisational work.

In realising economic plans, the Party organises socialist emulation on a national scale, skilfully combining eco-

nomic incentives for raising labour productivity with educational and propaganda work.

Government bodies, trade union, co-operative and Komsomol organisations, all participate actively in working out and implementing plans for communist construction under the leadership of the C.P.S.U. The Central Committee of the C.P.S.U. and the Government improve plans in the course of their implementation. It also ensures that plans are in keeping with the general Party line.

The First Five-Year Plan for the development of the ferrous, non-ferrous, tractor, motor, farm machinery industries, collective farms and state farms was revised when socialist emulation and newly disclosed reserves showed that the rate of construction could be accelerated. The newly included targets envisaged the creation of a second coal and metallurgical centre in the East, the building of the Kharkov Tractor Works and the Saratov Combine Harvester Works, a number of aircraft and motor works, the Azovstal Iron and Steel Works, the Iron and Steel Works in Novo-Tula, the Pipe Works in Nikopol and Pervouralsk, a synthetic rubber works, etc. This improved the First Five-Year Plan by raising the original rate of economic development and helped to fulfil the plan ahead of schedule.

In 1957-58 the Party Central Committee improved the directives for the Sixth Five-Year Plan. The volume of housing construction was increased, and a plan for the development of the chemical industry was worked out.

Enemies of the Party—the Trotskyites and Right-wing opportunists—repeatedly attempted to distort the Marxist-Leninist principles of planning, to delay, hamper and defeat all plans adopted by the Party. It needed time and effort for the Party to overcome the hostile elements and to free planning from their influence.

The Party attaches great importance to the observance of exact scientific principles in the Marxist theory and practice of planning. In the post-war years it fought voluntarism in economic science and in the theory of planning.

The success of Soviet planned economy proves that the Communist Party's approach to planning is correct and

that economic construction and development must be controlled by the Party.

With the approach of communism the role of the Communist Party is heightened and some functions of the socialist state are delegated to public organisations.

The practice of socialist construction in the People's Democracies, too, shows that socialist planning must be directed by the Party of the working class.

At the Fifth Congress of the Socialist Unity Party of Germany, Otto Grotewohl said that the victory of socialist construction in the German Democratic Republic can be organised only by a Party which is armed with the theory of scientific socialism: "To try to build socialism without the regulating and guiding force of the Party would be as useless as to try to start a motor car without an engine."

Party approach is one of the main features of socialist planning. Another important feature is its *state approach*. The socialist state is the director and executor of the plan: it maps out economic plans and brings them to fruition. The state organises production, distribution and exchange on a social scale in conformity with the requirements of economic laws; establishes standards reglementing the measure of labour and the measure of consumption for all members of the community. Legally speaking, economic plans have the force of law or government proscriptions; they are obligatory to all, and their fulfilment is supervised by state bodies.

Lenin repeatedly stressed that it was essential to adopt a state approach to planning, and that plans should be directives. He called them tasks handed down by the state to the proletariat.

What explains the great role of the socialist state in the economic field and why does economic planning remain a matter of state importance right up to the final and irrevocable triumph of communism? This is because the socialist state differs fundamentally from the bourgeois state, because in the socialist state the political superstructure plays a particularly active role in respect to the economic basis and because the state control over the measure of labour and the measure of consumption is necessary in socialist economy.

The state is an organisation of the ruling class, the apparatus safeguarding its vital interests. The state is the superstructure on the economic basis, and the functions of the state, therefore, reflect the nature of its basis.

Marxism has expounded the interdependence and interrelation of basis and superstructure, the dependence of the political and juridical superstructure on the economic basis. The economic basis—the production relations—are primary and determinative. Society cannot jump over natural stages of development or decree them out of existence. Marx declares that "it is the sovereigns who in all ages have been subject to economic conditions, but they have never dictated laws to them."* Only changes in production relations can change the superstructure.

On the other hand, the political superstructure is not indifferent to the fate of its basis, the fate of the classes in the system, and to the nature of the system itself. It is a major force that promotes the formation and consolidation of the basis.

When the leaders of the working class organised the struggle against capitalism and worked out the programme for the building of a new society, they fully recognised the importance of the political superstructure for far-reaching economic reforms, for the building of communism. They made short work of all attempts to belittle the economic role of the administrative and political weapon of the proletariat. "Why do we fight for the political dictatorship of the proletariat if political power is economically impotent?" Engels asked and himself replied that: "Force (that is, state power) is also an economic power!"** Lenin censured the "Left Communists" who denied the importance of the dictatorship of the proletariat in the economic field. On the basis of Soviet experience, Lenin made a profound study of the role played by the proletarian state in the economy and concluded that political power was a weapon for the reform of the old and organisation of the new economy.

But the activities of the political superstructure do not always give the desired effect. The effect depends on the

* Karl Marx, *The Poverty of Philosophy*, Moscow, 1958, p. 83.

** Marx and Engels, *Selected Correspondence*, p. 507.

direction taken by the action of the political power. Engels said that "after the political force has made itself independent in relation to society, and has transformed itself from its servant into its master, it can work in two different directions. Either it works in the sense and in the direction of the natural economic development, in which case no conflict arises between them, the economic development being accelerated. Or it works against economic development, in which case, as a rule, with but few exceptions, force succumbs to it."*

Political power and juridical laws have a real and progressive economic significance only if the economic phenomena they defend correspond to the social mode of production. In a state based on antagonistic production relations which are in contradiction to the development of the productive forces, and in which the ruling classes are historically doomed, state activities oppose and hamper social progress. This is typical of the bourgeois states of developed capitalist countries. The opposite is true of a state based on progressive production relations. They exclude exploitation and correspond to the character of the productive forces. Where the progressive class is the ruling class it expresses the requirements of the economic development having matured at that stage, and the state plays a major active role in advancing the national economy. The socialist state illustrates this.

The bourgeois state is based on antagonistic production relations. The relations of private property and the exploitation of the proletariat on which rests bourgeois society, determine the nature of the capitalist state. The principal function of the bourgeois state, or to use Marx's and Engels's expression, of that committee in charge of the business of the bourgeoisie, is to safeguard the private ownership of the means of production and to suppress the resistance of the exploited classes. This makes violence and police duties the principal functions of the bourgeois state.

Under imperialism the bourgeoisie cannot control production without direct state intervention. But this does not change the class nature of the bourgeois state, does not

* Engels, *Anti-Dühring*, p. 252.

mean that it applies planned economic management. The intervention of the imperialist state in the economy, its economic role, is auxiliary to its main task—the oppression of the working class, the protection of bourgeois ownership of the means of production, and the perpetuation of capitalist exploitation of the wage workers. The bourgeois state intervenes in economic life on behalf of the interests of the most powerful monopolies. In the U.S.A. in 1952-53 the state appropriated about 33 per cent of the national income and distributed it in the interests of the monopolies. The economic role of the bourgeois state has grown substantially since the Second World War.

"The world capitalist system is going through an intense process of disintegration and decay. Its contradictions have accelerated the development of monopoly capitalism into state-monopoly capitalism. By tightening the monopolies' grip on the life of the nation, state-monopoly capitalism closely combines the power of the monopolies with that of the state with the aim of saving the capitalist system and increasing the profits of the imperialist bourgeoisie to the utmost by exploiting the working class and plundering large sections of the population."*

Under state-monopoly capitalism, the state is a tool of the monopolies and is used by them to further their interests. The placing of orders, the use of state-owned enterprises, financial and credit measures, foreign trade policy, and wage-freezes for factory and office workers are carried out to benefit the monopolies. Facts show that capitalist nationalisation and the building of enterprises at government expense are a means of making the mass of taxpayers finance the monopolies and of freeing capitalists from heavy capital investment on the building of expensive projects. These enterprises are built by the government and are then run in the interests of the monopolies or are sold to them for a song.

State-monopoly capitalism does not remove, but intensifies the competitive struggle between the monopolies. State-monopoly capitalism aggravates the uneven development of capitalism and continuously changes the balance

* *The Struggle for Peace, Democracy and Socialism*, pp. 39-40.

of power between the imperialist countries. The narrowing of the sphere of imperialist domination intensifies the contradictions between imperialist countries. The problem of markets, too, becomes more acute.

Far from alleviating the crises wrecking the capitalist system, state-monopoly capitalism exacerbates the antagonistic contradictions in that system. In the U.S.A., the country in which state-monopoly capitalism is most developed, three crises hit the economy between 1948 and 1959. In 1948-49 industrial production dropped by 10.5 per cent, in 1953-54 by 10.2 per cent and in 1957-58 by 13.7 per cent. In 1960-61 there was a new slump in production.

All the main features of modern imperialism had already taken shape at the beginning of the century. Lenin understood the true nature of state-monopoly capitalism and rightly declared that if private property remained, capitalist domination and all the consequences arising from it would continue to exist no matter how far monopolisation, and the coalescence of the state with the monopolies progressed.

Lenin said that "the erroneous bourgeois reformist assertion that monopoly capitalism or state-monopoly capitalism is *no longer* capitalism ... is very common", and continued that under imperialism "we still remain under *capitalism*—at its new stage, it is true, but still capitalism, without a doubt".*

Socialised capitalist production, developing especially intensively under imperialism, cannot become a prerequisite for planned economy without a revolutionary leap. "Capitalism," Lenin declared, "creates its own grave-digger, itself creates the elements of a new system, yet, at the same time, without a 'leap' these individual elements change nothing in the general state of affairs and do not affect the rule of capital."**

Modern revisionists take pains to conceal the true nature and social significance of the imperialist state. They wrongly declare that private capital has been replaced by the state. Bittelman, an American revisionist, declares that the modern bourgeois state is "a general welfare state",

* Lenin, *Collected Works*, Vol. 25, pp. 442, 443.

** Lenin, *Collected Works*, Vol. 16, p. 348.

is no longer an organ of violence, and does not function in the interests of the monopolies.

It is equally wrong to counterpoise private capitalist property to bourgeois state property. The bourgeois state will never resort to socialist expropriation of private property, while the property of the capitalist state is nothing but a camouflage concealing the interests of the biggest capitalist monopolies, and does not stop being capitalist property. The class nature of the bourgeois state does not disappear but becomes ever more pronounced. The intervention of the bourgeois state in the economy is dictated by the ruling monopolies and is contrary to the interests of the working people. In defending the interests of the most powerful monopolies the bourgeois state becomes a tool in the competitive struggle between the various monopoly groupings and not an organiser of planned economy. The bourgeois state also militarises the economy, a reactionary policy which impedes the growth of the productive forces and aggravates the antagonistic contradictions of the capitalist system.

The bourgeois state can never play a decisive role in the economy, not even in times of war, and is unable to do away with the anarchy of production by organising economic planning. "The modern state," Engels wrote, "no matter what its form, is essentially a capitalist machine, the state of the capitalists, the ideal personification of the total national capital. The more it proceeds to the taking over of the productive forces, the more does it actually become the national capitalist, the more citizens does it exploit. The workers remain wage-workers—proletarians. The capitalist relation is not done away with. It is rather brought to a head."* This characteristic Engels gave to the bourgeois state is as true today as it was when these words were written.

The exploitative nature of the imperialist state has been exhaustively demonstrated in Lenin's works.

In defending private property, the modern bourgeois state has become a reactionary force that impedes the development of productive forces, and this in the final analysis, dooms the capitalist state to destruction. The

* Engels, *Anti-Dühring*, p. 384.

conflict between production relations and the productive forces generated by the capitalist system creates the economic basis for the proletarian revolution, which utterly destroys the capitalist state machinery.

In attempting to pass off the bourgeois state as a "welfare state" or state of "social harmony", the revisionists are breaking with the fundamental principles of Marxism.

The socialist state emerges as a result of the overthrow of the exploiters, the elimination of capitalist property and the establishment of public ownership of the means of production. "The proletariat," Engels said, "seizes the public power, and by means of this transforms the socialised means of production, slipping from the hands of the bourgeoisie, into public property. By this act, the proletariat frees the means of production from the character of capital they have thus far borne, and gives their socialised character complete freedom to work itself out. Socialised production upon a predetermined plan becomes henceforth possible."*

After the triumph of the socialist revolution the state becomes an organisation of the working people and the owner of the basic means of production. This state therefore not only protects the political interests of the working people but also organises material production (the economy). Marx and Engels pointed out that the proletariat uses its political rule to dispossess the bourgeoisie of the means of production in order "to centralise all instruments of production in the hands of the State, i.e., of the proletariat organised as the ruling class".** This prediction has been endorsed by history. In many countries, where the state is an organisation of the working people, it assumes control over all decisive means of production and controls social production on behalf of society as a whole.

After the victory of the socialist revolution, the function of the government includes the organisation of the economy. An indispensable task of state management in Soviet Russia, Lenin pointed out, was the radical reorganisation of the very foundation of the economy. It had to create

* Engels, *Anti-Dühring*, p. 393.

** Marx and Engels, *Selected Works*, Vol. I, p. 53.

"an extremely intricate and delicate system of new organisational relationships extending to the planned production and distribution of the goods required for the existence of tens of millions of people."*

The new role of the Soviet state in the economy was vividly set forth in the Party Programme adopted in 1919. "At a time when the means of production being expropriated from the capitalists are being socialised, the state stops being a parasitical apparatus standing above the production process; it is transformed into an organisation for the management of the country's economy." The apparatus engaged in the organisation of the national economy, Lenin said, is fated to develop and grow stronger, until economic management becomes the main function of organised community.

The main economic role of the dictatorship of the proletariat springs from the essence of the transition period from capitalism to communism. The revolutionary reorganisation of capitalism into socialism cannot proceed haphazardly and must of necessity affect the foundations of economic life. "The principles of communism," Lenin said, "consist in the establishment of the dictatorship of the proletariat and in the use of state coercion in the transition period."** The dictatorship of the proletariat applies coercion to the capitalists who resist the building of socialism. This may be economic or non-economic coercion. To some extent this coercion is extended also to citizens who do not observe accepted labour and consumption norms.

But violence does not constitute the essence of the dictatorship of the proletariat. The coercion is exercised mainly to make people observe the basic rule of socialist society, which is that all able-bodied people must work. And this coercion, predominantly and preferably takes an economic form, is enforced through a corresponding distribution of products. The dictatorship of the proletariat plans the economy in the interests of all working people; economic management becomes a province of the people. In these conditions coercion is an enforcement of

* Lenin, *Collected Works*, Vol. 27, p. 241.

** Lenin, *Collected Works*, Vol. 32, p. 469.

the will of the vast majority upon the few members of the community who try to evade the generally accepted norms of economic life.

Ownership of the basic means of production and the organisation of production in conformity with economic laws makes the socialist state the principal force in socialist construction. The socialist industrialisation of the country was a major task of the Soviet state. To finance the industrialisation it had to create accumulations, use funds expropriated from the capitalist classes, marshal the savings of the working people, and promote the development of large-scale industry.

The dictatorship of the proletariat has fulfilled its historical mission also with regard to the working peasantry: it has collectivised peasant households. The socialist reorganisation of agriculture was the most complicated task in the socialist reorganisation of society. Only a strong proletarian state could carry out this step, even though the peasantry was materially interested in co-operation. Lenin said that "the proletariat needs state power, a centralised organisation of force, an organisation of violence, both to crush the resistance of the exploiters and to lead the enormous mass of the population—the peasants, the petty bourgeoisie, and semi-proletarians—in the work of organising a socialist economy."* The experience of collectivisation in the Soviet Union has corroborated Lenin's statement. The greatest ever revolution in agriculture was carried out on state initiative with the direct support of the peasants.

The economic and organisational functions of the Soviet state have changed since its inception. In the first phase of the development of Soviet statehood, before the socialist economy asserted itself, state bodies were mainly concerned with the suppression of the overthrown classes and with defending the country against aggressors from without. Under the leadership of the Communist Party the Soviet state not only rehabilitated the economy dislocated by the First World War and the Civil War but accomplished the industrialisation of the country and the

collectivisation of agriculture. In short, it succeeded in building a socialist economy.

Once the capitalist elements had been eliminated, the only remaining function of the state was that of defending the country against imperialist aggression. This meant that the state could now give more attention to economic organisation and education. The measures taken by the state in these fields during the second phase of its development brought outstanding successes to the economy. The cultural revolution was also carried out under the direct leadership of the state.

Under socialism social production is organised according to the principle "from each according to his abilities, to each according to his labour", a principle that makes labour obligatory. As the main organiser of the economy, the state guarantees the socialist principle of distribution, for only such an omnipotent and all-embracing organisation is able to enforce socialist principles in all spheres of social life. "Socialism is inconceivable," Lenin said, "without...planned state organisation, which keeps tens of millions of people to the strictest observance of a unified standard in production and distribution."*

People who are the products of a capitalist society cannot reject age-old habits and views the moment there is a socialist revolution. The idea that labour is a burdensome and tedious duty is difficult to erase, and conditions of labour do not change overnight. Petty-bourgeois elements who are not used to the strict discipline enforced at factories, exert an adverse influence on the organisation of social labour as a whole. As a result the state is forced to concern itself with the organisation of labour and to apply sanctions to those who try to shirk work.

The communist principle of distribution cannot be applied while there still are survivals of capitalism in the attitude towards labour, class differences, and labour productivity is still relatively low. The state must therefore strictly enforce the norms of socialist society. "Until the 'higher' phase of communism arrives," Lenin said, "the socialists demand the *strictest* control by society and

* Lenin, *Collected Works*, Vol. 25, p. 404.

* Lenin, *Collected Works*, Vol. 27, p. 339.

by the state over the measure of labour and the measure of consumption.”*

Under socialism state control over the measure of labour and measure of consumption presupposes the achievement of a higher labour productivity than under capitalism and the education of a labour discipline that will engender a new attitude towards labour—one that will make work a habit and a vital need. It takes a long time to effect this metamorphosis and calls for a constant improvement in labour conditions, a vast amount of educational work, and a systematic rise in the cultural level of the people. But it also presupposes a state sanction demanding overall observance of reglemented labour norms.

State organisation of labour under socialism has nothing in common with the forced labour of capitalism. Capitalist labour organisation is based on the exploitation of the working people, leads to a systematic lowering of their living standards and destroys the creativity of labour.

Socialism poses the just, democratic and rational demand that labour be obligatory to all, and that people work for the benefit of themselves and of their fellow-citizens. Since the Soviet state is an organisation of the working people in defence of their vital interests, state organisation of labour in the Soviet Union is not and cannot be despotic. A strict but comradely labour discipline is enforced, creative initiative is stimulated, and socialist emulation between all the working people for the expansion of production, an increase in the labour productivity and popular consumption is promoted. The active participation of the people in the economy and, more particularly in socialist emulation, is an important weapon in the struggle against bureaucracy as well as helping to improve state planning activities.

The economic and cultural functions of the state bodies are closely interlinked. In its role as organiser of social production, the Soviet state explains to the working people the basic tasks of economic construction, teaches them a new attitude towards labour, and only after the tasks have been clearly understood, carries out the necessary organi-

* Lenin, *Collected Works*, Vol. 25, p. 470.

sational and economic measures. Sanctions against unco-operative members of society are only applied, if unavoidable. Lenin vividly described the multifarious activities of the proletarian state and combination of its organisational and educational tasks when he said: “The dictatorship of the proletariat means a persistent struggle—bloody and bloodless, violent and peaceful, military and economic, educational and administrative—against the forces and traditions of the old society.”*

State organisation of labour and social production, proceeding from the laws of social development, takes full account of the objective relations between classes which form in the course of this development and determines the length of time necessary to carry out socialist reforms. The norms for the organisation of labour and production enforced during that period are laid down by legislation as juridical laws, the aggregate of which safeguards the developing socialist mode of production against hostile forces. This explains the enormous importance of socialist laws for the economy in general and planning in particular.

As long as the state remains a necessity, legal norms to organise a planned economy, to regulate economic relations between classes, public groups and enterprises, and to enable the community and the state to control the general adherence to norms of labour and consumption must be observed.

In the Soviet Union the basic norms in production and consumption are regulated by state bodies making the planning of social labour and production a government function.

At the same time we must not underestimate the importance of planning activities by non-governmental bodies, for example, those of co-operative organisations. A state approach to planning presupposes rather than excludes the existence of other than state norms in production and consumption.

Planning in the collective farms is not state planning. The collective farms work out their own production plans, targets for increases in labour productivity and distribu-

* Lenin, *Collected Works*, Vol. 31, p. 44.

tion of output. But collective-farm-co-operative planning is co-ordinated with the state plan, and conforms to state principles of labour organisation.

Until the complete and final victory of socialism the Soviet state existed in the form of a proletarian dictatorship. "Having brought about the complete and final victory of socialism—the first phase of communism," the Programme of the C.P.S.U. says, "and the transition to the full-scale construction of communism, the dictatorship of the proletariat has fulfilled its historic mission and has ceased to be indispensable in the U.S.S.R. from the point of view of the tasks of internal development." The dictatorship of the proletariat has in the new, contemporary stage, become a state of the entire people, an organ expressing the interests and will of the people as a whole. Since the working class is the foremost and best organised force of Soviet society, it plays the leading role also in the period of the full-scale construction of communism. Expressing the will of the people, the state must organise the building-up of the material and technical basis of communism, and the transformation of socialist relations into communist relations. Collective-farm-co-operative planning supplements state planning, remaining a necessity while there are two forms of socialist property, and growing in importance as state planning develops.

All this illustrates the important economic role played by the socialist state in protecting and consolidating socialist property and socialist relations of production, and in safeguarding and strengthening the most progressive type of labour organisation.

The development of socialist production relations, and the reduction of class disparities, expands and strengthens the social basis of the state and creates wider possibilities for the planned management of the economy. The state changes the forms and methods of economic management in step with the progress of the socialist economy.

With the emergence of a world socialist economy the state assumes new economic functions. At present the organisation of close co-operation and mutual assistance with other socialist countries has become the main task of the Soviet state. The development of socialist statehood, the Programme of the C.P.S.U. says, will gradually trans-

form the state into a system of communist self-government. The bodies in charge of planning, accounting, economic management and cultural advancement will lose their political character and become organs of public self-government. The communist society will become a highly organised community of workers. Once class differences have been ironed out, labour productivity has reached a high level, and a communist attitude to labour has been achieved, compulsive and organised labour will become unnecessary. Government will then become a matter of "management of production processes". The C.P.S.U. Programme says that the state will remain a national organisation until communism has won an overall victory. "Expressing the will of the people, it must organise the building up of the material and technical basis of communism, and the transformation of socialist relations into communist relations, must exercise control over the measure of work and the measure of consumption, promote the people's welfare, protect the rights and freedoms of Soviet citizens, socialist law and order and socialist property, instil in the people conscious discipline and a communist attitude to labour, guarantee the defence and security of the country, promote fraternal co-operation with the socialist countries, uphold world peace, and maintain normal relations with all countries."* The withering away of the state will bring enormous changes to the life of society. "Politically, the distinction between the first, or lower, and the higher phase of communism will in time, probably, be tremendous."**

The state will fade away when communism has finally and completely triumphed. But as long as imperialist countries still exist, the communist state will have certain economic organisational functions in addition to ensuring defence against possible imperialist aggression. These will include the development of the defence industry, the creation of strategic reserves, the distribution of labour resources between the civil and military industries and the establishment of economic ties with foreign countries.

History shows that every time the proletariat becomes

* *The Road to Communism*, Moscow, 1961, pp. 547-48.

** Lenin, *Collected Works*, Vol. 25, p. 470.

the ruling class and nationalises the means of production, the state organises social production according to a unified plan. In this connection it is interesting to note that even during the few days that the Paris Commune dealt with economic problems, it laid down a plan to reoperate closed bourgeois factories.

In his introduction to Marx's *Civil War in France* Engels wrote: "On April 16 it ordered a statistical tabulation of factories which had been closed down by the manufacturers, and the working out of plans for the operation of these factories by the workers formerly employed in them, who were to be organised in co-operative societies, and also plans for the organisation of these co-operatives in one great union."*

As soon as the Paris Commune assumed state functions and began to instigate measures to satisfy the vital needs of the citizens of Paris, it realised that organised and planned production was essential. If it had succeeded in implementing this, it would inevitably have had to abolish private property.

The October Revolution continued this cause. When the Hungarian proletariat assumed power in the wake of the Russian Revolution, it dispossessed the exploiters and set up a Supreme Economic Council which was to organise a planned national economy. Y. Varga, at that time Chairman of the Hungarian Supreme Economic Council, declared that the resemblance between the measures the council adopted and those taken in Russia "was not the result of imitation, but an inevitable effect of the dictatorship". Varga rightly declared that "no matter what differences there are in national, historical and geographical conditions, the same principal economic factors apply wherever a proletarian dictatorship is established".

The example of the People's Democracies set up after the Second World War illustrates that it is both necessary and possible to introduce planned economy when the political and economic power of capitalists and landowners is expropriated. Moreover the establishment of public ownership of the means of production and a proletarian dictatorship is a *sine qua non* of socialist revolu-

tion. At the same time, there are certain distinctions in the way People's Democracies have organised their state power, especially as regards the participation in state management of different layers of the population and of different political parties. These different forms in state organisation were a result of the different conditions in which the socialist revolutions in the various countries were carried out.

* Marx and Engels, *Selected Works*, Vol. 1, p. 479.

CHAPTER II
**DEVELOPMENT OF PLANNING
IN CONNECTION WITH THE GROWTH
OF SOCIALIST SOCIALISATION**

[Planning in the Mixed Economy Period]

In the preceding chapter we investigated the economic and political prerequisites for the emergence and development of planned socialist economy, the main theoretical problems connected with the operation of the law of planned, balanced development and its conscious application by the Soviet state. The purpose of this chapter is to show how the Soviet state, guided by Marxist-Leninist theory, developed and improved the principles, forms and methods of economic management, and transformed these theoretical principles into reality.

The economic laws of socialism began to operate with the emergence of a socialist mode of production. As socialist production relations grew and socialist socialisation expanded, so the sphere of operation of the law of planned, balanced development extended. The strengthening and growth of Soviet economy also consolidated the economic basis and economic role of the Soviet state. National economic planning became more effective and its methods improved.

The execution and planning of socialist reproduction take place under concrete historical conditions. The difficulties and contradictions of every historical period are reflected in the economic plans, and for this reason different methods are used to solve economic tasks at different times. No wonder, then, that the planning of reproduction and the methods by which the national economic plan was implemented varied in the different stages of Soviet economic development.

Lenin pointed out that economic planning must be studied in its historical context and in connection with

socialist construction and the vital needs of the economy. In an article entitled "Integrated Economic Plan", published in 1921 and which has since become a guide for all planners, Lenin censured those who spoke of planning "in general", irrespective of time and space and of the specific tasks plans are called upon to solve. The contents and methodology of planning and the role of planning in socialist reproduction, can be expounded only in the historical context and this makes the study of the development of socialist planning in the Soviet Union indispensable. An analysis of changes in the conditions of planning brought about by the growth of socialist socialisation in the various stages of its development will clarify the progress of socialist planning. This analysis will explain the origin and functions of the law of planned, balanced development and will also help to understand the dependence of Soviet planning activities on objective conditions.

The history of the Soviet Union can be divided into two periods differing as regards the level of socialist socialisation corresponding to two periods in the development of Soviet statehood:

first—the period of mixed economy and the gradual growth of socialist elements, during which the economic activity of the state bodies was resisted by capitalist elements and small-scale commodity production predominated in agriculture;

second—socialism, the period in which there is only one economic sector. In this period socialist socialisation dominates the urban and rural economy and there is an overall development of state economic and organisational activities. The transition from the first period to the second is characterised by a substantial change in the sphere in which the economic laws of socialism operate, and in the conditions for economic planning.

This book does not claim to be an exhaustive survey of the development of planning in the Soviet Union. That is another field of study. However, any investigation of the changes in the conditions and methodology of planning demands some reference to historical facts, references without which any serious study of the role played by

public property, socialist socialisation and the Soviet state in economic planning is impossible.

The Soviet state achieved splendid results in economic organisation only because the level attained by the development of the productive forces and the socialisation of the economy along socialist lines was fully taken into account. But the history of planning also proves that where state measures lag behind the development of the productive forces and the relations of production or try to precipitate them, there is the possibility of contradictions emerging between the economy and politics.

Economic Conditions for Planning in the Transition Period. Main Stages of the Socialisation of Production

The transition period from capitalism to socialism is characterised by the mixed economy, the successful struggle of the socialist economic sector against the capitalist sector, the reorganisation of small-scale commodity production along socialist lines and the switchover from pre-capitalist to socialist economic development, completely bypassing the capitalist stage. The transition period in the Soviet Union took about twenty years and its end was marked by the complete victory of socialism at the end of the Second Five-Year Plan.

The sphere of operation of the law of planned, balanced development extended steadily during this period, while the law of value continued to play an important role, though its spontaneity was increasingly limited. Methods of direct planning were combined with indirect planning (regulation) though the former took the lead.

In keeping with the objective requirements of economic development, planning in the transition period was directed at ensuring the overall growth and ultimate victory of the socialist sector in the economy. Also small peasant households had to be transformed into socialist enterprises and capitalist elements confined and later completely annihilated. During the period of mixed economy, the Communist Party and the Soviet state actively developed all productive forces by socialising the basic means of pro-

duction, basing their policy on Lenin's theory of the possibility of building socialism in a single country.

Immediately after the Revolution five economic sectors were clearly discernible in the Soviet economy: the patriarchal, which to a large extent was natural peasant economy; the small-scale commodity production; private capitalism; state capitalism; and socialism.

In 1917-20 the contradictions between socialism and capitalism were being solved by the Civil War. In all fields—military, political, organisational and economic—the forces of socialism had the edge over the forces of capitalism and the young socialist state won the Civil War. From 1921 onwards the war between socialism and capitalism passed into a “peaceful” economic competition. Although administrative state measures against capitalist elements became particularly important they should not be exaggerated. During the most intensive period of the struggle, from 1930 to the autumn of 1932, 240,757 kulak families were evicted from regions where mass collectivisation was under way. The households thus taken over accounted for about one per cent of all peasant households in the country.

The *socialist sector* assumed command of the economy in the first years of the transition to a peaceful development.

Share of the Socialist Sector in the Soviet Economy

(per cent)

	1924	1928	1937
Fixed production assets (excluding cattle)	59.8	65.7	99.6
National income	35.0	44.0	99.1
Gross industrial output	76.3	82.4	99.8
Gross agricultural output	1.5	3.3	98.5
Retail trade (including public catering)	47.3	76.4	100

Progressive methods had to be used to overcome the negative features in the various economic sectors. This diversity of the social structure and the mass of small-

scale commodity producers was incompatible with economic administration. At the First Congress of the State Planning Commission, Krzhizhanovsky cautioned "that care should be taken to avoid the drawing up of plans which could become boots of the Spanish Inquisition to economic development".

The rapid development of industry between 1921 and 1929 increased the role of the socialist sector. The socialisation of production in industry, the key branch of the national economy, proceeded consistently and on a large scale. This created the prerequisites for the planning of industrial production.

As in transport, banking, and trade, the socialisation of industry along socialist lines ultimately took the form of a state monopoly. The socialisation of industry achieved the complete liquidation of capitalist industry, the co-operation of artisan producers, the building of large state enterprises, the development of the division of labour, and the co-operation and combination of enterprises. The introduction of new equipment, electrification, mechanisation and chemical methods of processing raw materials went hand in hand with the socialisation of industry.

Small-scale commodity farming bulked large in Russia's transition period economy. In the twenties there were about 25 million peasant households in the Soviet Union. Connected with them was natural economy, small-commodity production and private capitalism which coexisted as higher and lower forms. Under the dictatorship of the proletariat the transition of some economic forms into others is dictated by other laws than under capitalism. In this way natural and small-scale commodity production could bypass capitalism in their transition to socialism. It was the aim of the planning bodies to make this transition possible.

As late as 1929 Soviet agriculture was not socialised and could not be managed in a planned way.

The fact that direct planning of small-scale commodity production was impossible did not mean that it was allowed to develop at random. The socialist state influenced the development of the peasant economy by indirect planning methods. "We are given less freedom of action in this sphere," Krzhizhanovsky said of small-scale com-

modity producing farming. Agriculture is a field in which "our *directives* are subjected to the most rigid limitations and in which the law of the largest numbers and the method of extrapolation manage to assert themselves to a very high degree".

The development of heavy industry and state farms created the material prerequisites for mass collectivisation. The collectivisation of peasant households brought socialist victory to the countryside, where non-socialist forms of economy prevailed. Mass collectivisation helped annihilate the kulaks, the last capitalist class, which had its roots in small-scale commodity production. The table below shows how rapidly the collectivisation proceeded:

Percentage of Collectivised
Peasant Households

1918— 0.1	1933—65.6
1928— 1.7	1934—71.4
1929— 3.9	1935—83.2
1930—23.6	1936—90.5
1931—52.7	1937—93.0
1932—61.5	

1929 marked the turning point in the drive for collectivisation. In that year the output of marketable grain in collective farms and state farms equalled the level of that in kulak farms and soon the state was able to do without kulak grain. In 1932 over 60 per cent of all peasant farms were collectivised. The socialist system now dominated not only industry but also agriculture.

Collective farms are the principal form taken by the socialisation of small-scale commodity production in agriculture. These are a vital necessity for the truly socialist development of peasant households. The collective farm is a form that combines, to an optimal degree, the interests of the socialist state with the personal interests of the collective farmers, and at the same time ensures the state assistance to farms and state control over the development of agriculture. The socialisation of working peasant households prepared the ground for the organisation of agricultural artels, i.e., the present-day collective farms.

The socialisation of Soviet agriculture was directly influenced by socialist industry and the Soviet state. It was based on the nationalisation of land and the growing

alliance of the working class with the working peasantry. The peasantry—small-scale commodity producers—cannot develop independently, and is drawn into the orbit of capitalist or socialist industry. In the Soviet Union state industry became the leading force in the socialist socialisation of agriculture. The state continues to maintain its leading role in the organisation of collective-farm production even after the collectivisation is completed.

Sales co-operatives and simple forms of producer co-operatives preceded the organisation of collective farms, and prepared the peasants for collectivisation. Collectivisation was also promoted by trade and the production ties between industry and agriculture. These ties drew small-scale commodity production to an ever greater extent into the orbit of large-scale socialist industry, developing it stage by stage to higher forms of socialisation. Complete socialisation did not come to agriculture overnight, it had to pass through stages, which in many respects resembled those passed by industry. In the second half of the twenties, when there were as yet no collective farms, and farming in peasant households was predominantly manual, a contract system was introduced to organise production in some branches of agriculture.

In its early days, when collectivisation meant little more than the pooling of simple peasant implements, and farm machinery was at a premium, the farms were in the manufactory stage of development. But this stage was short-lived—machine and tractor stations brought mechanisation to the collective farms.

The above stages in the socialisation of agriculture—the contract system, the manufactory stage and machine production—are not an exact repetition of those through which capitalist industry passed. We are concerned with only one aspect—the material and technical basis of the socialisation of labour and production, a process developing under the direct influence of the socialist mode of production. The conditions for planning improve as the socialisation of agriculture develops, and with the predominance of collective farms agricultural planning becomes inevitable and highly effective.

This period also saw the organisation of another form of agricultural enterprise—the state farms. They were

based on the nationalisation of land and state ownership of the other means of agricultural production. But state farms still employ much fewer people and produce much less than collective farms. There are two forms of socialist property in agriculture—state and co-operative—and for that reason there also are different forms and degrees of socialisation and different forms of planning in agriculture.

Before the socialist reconstruction of the economy the bulk of the population was engaged in the small-scale commodity production sector, while the *capitalist sector* was of little importance to the Soviet economy. Before the Revolution all the exploitive classes formed 16.3 per cent of the population, in 1928 their share had fallen to 4.6 per cent. The share of the capitalist classes in the national income was 8.1 per cent in 1927-28, 6.5 per cent in 1928-29 and only 1.8 per cent in 1929-30.

In the early twenties private enterprise still played a considerable role in industry but by the end of the decade its influence was waning. In 1923-24 the output of private enterprise accounted for 23.7 per cent of the total industrial output, in 1924-25 for 20.7 per cent and in 1928-29 for only 0.9 per cent. The term "private enterprise" included many artisan workshops which did not actually employ wage labour but to all intents and purposes might be considered capitalist.

Capitalist (kulak) households played a large part in the agriculture of the middle twenties. The Revolution had undermined their economic might. In 1926-27 kulak households produced about 20 per cent of all marketable grain, whereas before the Revolution they had produced the bulk of the marketable grain. Even so, they produced 7.7 times more grain than the collective farms and state farms. The private sector accounted for 52.7 per cent of the retail trade turnover in 1924, 23.6 per cent in 1928, 13.8 per cent in 1929 and 5.6 per cent in 1930.

The capitalist classes struggled for the restoration of bourgeois relations and as far as possible sabotaged Soviet state plans. During the NEP* years capitalist production

* NEP—the New Economic Policy of the Soviet Government using the market, trade and money economy to push aside capitalist elements and build socialism.

and trade were based on the exploitation of hired workers in spite of all restrictions and state control. This naturally harmed socialist construction and diverted a part of the national income to parasitic consumption. Capitalist and small-scale commodity production also tended to produce anarchy and constituted a serious impediment to planned economic development.

During the transition period the capitalist classes refused to co-operate with the Soviet state by failing to comply with state plans aimed at promoting the country's socialist transformation.

State capitalism existed in the economy of the transition period in the form of rents paid by enterprises and foreign concessions, but exerted no substantial influence on economic development. During the first four NEP years over a thousand foreign firms wanted to conclude concessional agreements with the Soviet Government, but only 97 were signed. Most offers were rejected because the concessions applied for were in key fields of the economy, over which the Soviet Government was unwilling to relinquish control. Of the 83 concessions operative in 1925, twenty were trading, four agricultural, six forestry, four mining and three manufacturing. So few concessions could not seriously interfere with the planning activities of the Soviet state.

The co-operation of the working class with the peasantry and the struggle between the socialist and capitalist sectors produced a rapid advance of socialism, and created conditions for universal directive planning. In 1923-24 the contribution of the various sectors to the country's gross output was as follows: the patriarchal—0.6 per cent, small-scale commodity production—51.0 per cent, private capitalist—8.9 per cent, state capitalist—1.6 per cent, and the socialist sector—35.3 per cent.*

By the thirties the patriarchal, private capitalist and state capitalist sectors no longer existed, while small-scale commodity production was rapidly becoming socialist. In 1930 the socialist sector predominated in both the gross

* These figures are conditional because the patriarchal, small-scale commodity production and capitalist sectors were interlinked and the division of the output into sectors was based on accounts and statistical surveys, which at best, were no more than expert appraisals.

national income and the fixed assets of the economy. The First Five-Year Plan (1932) laid the foundation of socialist economy, the Second (1933-37) virtually completed the building of socialism. The development of the socialist system was already providing ever increasing opportunities for planning.

In the People's Democracies the economic conditions conducive to the introduction and development of planning matured in much the same way as they had in the Soviet Union. In all these countries socialist co-operation of small-scale commodity production and the ousting of capitalist elements made for the rapid expansion of the socialist sector.

A feature important in the co-operation of farms is the fact that land in the People's Democracies is owned by the working peasantry. The inevitable result is that incomes in lower form co-operatives are distributed not only according to work done but also according to the area of the land and the value of the other means of production belonging to individual members. A no less important feature of socialist construction in some People's Democracies is that the property of the small and medium national bourgeoisie has not been confiscated and the socialist transformation of private industry, trade and banking is effected in a peaceful manner.

We may conclude that the prerequisites for any economic planning are, firstly, socialisation on socialist lines of the basic means of production and, secondly, a socialist state, guided by a Marxist-Leninist Party, and pursuing an economic policy according to the positive laws of economic development.

Formation of the Socialist Mode of Production and Inception of Economic Planning

In the U.S.S.R. the expropriation of privately owned means of production and the emergence of socialist property took place quickly but violently. The decrees on nationalisation and monopolisation give us a picture of this process, although many of them were no more than

a legal confirmation of a *fait accompli*. The main decrees of that time dealt with the nationalisation of land, the monopoly right of the state to dispose of agricultural machines and equipment, the nationalisation of banks, the merchant fleet, foreign trade, food monopoly and the nationalisation of large-scale industry and railways.

At the Fifth All-Russia Congress of Soviets Lenin said: "We are registering and nationalising positively everything. And that will permit us to regulate the distribution of the products of industry."*

The expropriation of private property, the decreeing of socialist property and the actual socialisation of the expropriated means of production were not chronologically simultaneous. The socialisation of production required more time than did the expropriation. "We have nationalised, confiscated, beaten down and put down more *than we have had time to count*," said Lenin and demanded that "...we... consolidate all this in stable forms of *everyday labour discipline*."**

By early 1918 Lenin's plan for socialist construction incorporated a programme for the "de facto" socialisation of production. The general idea of the programme was to introduce a strict and universal accounting and control over all production and product-distribution and to enforce systematic labour discipline in order to raise labour productivity. Lenin's programme for "de facto socialisation" also included the following demands: "Completion of the nationalisation of all factories, railways, means of production and exchange. Categorical and ruthless struggle against the syndicalist and chaotic attitude to nationalised enterprises. Persistent carrying out of centralisation of economic life on a nation-wide scale. Unremitting demand for preliminary plans and estimates, weekly reports and actual increase of labour productivity. Establishment and practical trial of the apparatus for managing the nationalised industries."***

Accounting and control of production and distribution of products are therefore the primary task of socialist reorganisation. Besides, the nationalisation of the com-

manding heights of the economy, a strong state apparatus must be created to guide the economy on behalf of society. Lenin's plan provided for the reorganisation of Russia by establishing the dictatorship of the proletariat and nationalising the commanding heights of the economy. In the Soviet Union proletarian socialisation of the decisive means of production went hand in hand with the organisation of new state apparatus. The services of large numbers of working people were enlisted for participation in state administration, accounting and distribution of products.

The establishment of the workers' and peasants' government was followed by the introduction of workers' control, the organisation of the Supreme Economic Council, the setting up of a labour exchange to ensure effective utilisation of the labour force; the introduction of the 8-hour working day and the organisation of the village poor. All supported the socialist revolution in the countryside. These are but a few of the more important organisational reforms of the time.

The period from November 1917 to the middle of 1918 was marked by hectic revolutionary activity, for it was in that short time that the new Soviet state apparatus and a new socialist mode of production were established. It was at this time that the planned economy, or rather the decisive economic and organisational prerequisites for planning, were created. It was only then that economic planning became central to the economic policy of the Soviet state.

The socialist mode of production introduced by the October Revolution had, from its very inception, a decisive advantage over capitalism in that it was free from antagonistic contradictions between productive forces and production relations. In accordance with the social character of production the Revolution established public ownership of the means of production and distribution of the output in the interests of society as a whole. However, socialisation along socialist lines and state organisation of the economy were still in their early days, and no single plan could have weathered those turbulent times.

A few months after the Revolution the Soviet Government took steps to formulate a single economic plan. At

* Lenin, *Collected Works*, Vol. 27, p. 524.

** Ibid., pp. 334, 271.

*** Ibid., p. 319.

that time Lenin cautioned that this could not be achieved overnight.

"There was not and could not be a definite plan for the organisation of economic life," Lenin said in December 1917. "Nobody could provide one. But it could be done from below, by the masses, through their experience. Instructions would, of course, be given and ways would be indicated, but it was necessary to begin simultaneously from above and from below.

"The Soviets would have to become bodies regulating all production in Russia, but in order that they should not become staff headquarters without troops, work in the lower echelons was needed. . . ."

A series of measures to organise the economy and work out principles of economic planning were taken "from above and below". The final result was a harmonious system of economic administrative bodies and comprehensive socialist planning.

The first steps in planning the development of the economic branches were wholly determined by Lenin's plan for socialist construction. Most important of all was the planning of industry, the mainstay of proletarian dictatorship, for which there were more prerequisites than in any other branch of the economy.

Plans for industry and construction were discussed at the First Congress of Economic Councils held in May 1918. Industrial plans stipulated the volume of production in the coal, iron and steel, peat, and cotton industries. It was decided to increase the output of coal by 60 per cent (excluding the Donbas), iron and steel by six per cent (excluding the southern regions), peat by 40 per cent and cotton cloth by 70 per cent over the 1913 level. The plan for capital construction included the building of the Murman-Kotlas-Ob and Orenburg-Ufa-Perm railways, the Volga-Don Canal, the hydro-power stations on the Volkhov and Svir rivers, and large-scale irrigation work in Turkistan, etc. The irrigation programme was passed by the Council of People's Commissars on May 17, 1918. This was the first plan to aim at providing the Soviet textile industry with home-grown cotton.

* Lenin, *Collected Works*, Vol. 26, pp. 365-66.

In addition to union-republican plans, plans were drawn up on a local level. These included plans for the expansion of the textile industry in the Ivanovo-Voznesensk gubernia, for the building of agricultural machines in the Western region, etc. A noteworthy example were the production programmes for the Petrograd metal factories, drawn up by the metal workers of that city with the help of the Northern Economic Council. Attempts to draw up such a programme dated back to February 1918, but the novelty of planning and the absence of the necessary personnel delayed the drafting of the plan until it finally covered only the period from June to August. The programme embraced only that group of factories which was working for the railways, and because of the fuel shortage it was only partly implemented, as were all other plans at that time. The second programme for the Petrograd metal factories covered the period from September to December 1918. It embraced 60 factories and workshops, employing 34,900 workers.

The programme for the Petrograd metal factories was one of the first practical lessons in socialist economic construction and industrial planning by workers.

Before the introduction of surplus food requisitioning bartering played an important part in solving the food problem and in establishing economic links between town and countryside. In this way towns were to be supplied with food and raw materials, the countryside provided with consumer goods and machines; it was a way to exert an influence on agricultural production, since the flow of industrial goods to the countryside stimulated grain procurements. In those years bartering was styled "the key to the granaries". The state took over wholesale trade, large retail enterprises and granaries to organise the barter system.

Barter was expected to provide the state with 120 million poods* of grain in 1918, but from November 1917 to August 1918 only 30 million poods were procured. A number of reasons were responsible for this: first, considering the low level of industrial development the barter system was unwieldy and did not satisfy the peasantry, ultimately taking the form of ordinary buying and selling. Secondly,

* One pood = 16.38 kg.

the fulfilment of the plan for barter transactions was checkmated by sabotage on the part of kulaks and speculators, the dislocation of transport, the shortage in administrative personnel, etc.

In the first year of the Soviet Republic's existence the countryside contributed an inadequate share to the barter trade. Thus, only 36,000 railway cars of agricultural produce (mainly grain) were received in return for 42,000 railway cars of industrial goods (cloth, footwear, farm machinery, etc.). The threat of hunger and the failure of the barter system made it necessary to procure grain by other methods: through the creation of food requisitioning detachments, and the organisation of the village poor—methods which shaped finally during the Civil War.

The idea of exchanging commodities between town and country through barter was not abandoned. In 1921 the Soviet Government made a fresh attempt, which also ended in failure. The reasons were the same as before—the farmers preferred to sell their output for cash and the state had only a very limited stocks of industrial goods. According to the *Centrosyuz* in 1921 the state procured only seven million poods of rye through barter. On October 1, 1921, the grain procured was only eight per cent of the amount collected from co-operatives as tax in kind. This constituted only a negligible share of the total state procurements.

The unwieldy and bureaucratic barter system satisfied neither the farmers nor the workers. Events proved that while there is small-scale commodity production, distribution and exchange (mainly of consumer goods) can be organised and planned only through the medium of trade. Soviet trade remains the principal form of distribution under socialism and will continue to remain so until the building of communism is completed.

The socialist state's first attempts at planning extended also to the realm of finance. The first financial plan drawn up by the Russian Republic covered the period from January to June 1918. This first budget of the Soviet Republic differed fundamentally from capitalist budgets in class aims and also in that it strove to reflect the whole economic system and not only a part of it. This first budget mapped out general economic tasks directed at

creating a new system of life, one that will ensure the whole population with material wealth and comforts, by planned production managed by the workers themselves. True, the first budget was in effect no more than a declaration of fiscal policy for it was unable to embrace the whole economy, and failed to marshal a large portion of the peasantry as a potential source for financing socialist construction. Besides, the instability of the currency at that time naturally told on the value of financial planning.

The intensive building of planned socialist economy, the development of new forms in the organisation of economy, and the realisation of Lenin's plan for socialist construction were interrupted by the Civil War and foreign intervention.

The first economic plans of the Soviet state were implemented only to a small degree. In 1917-18, for example, two million tons of coal were produced instead of the five-six million tons planned, 54,000 tons of pig iron were smelted instead of 1.5 million tons, and only 47.5 million tons of grain were procured instead of the 200 million envisaged in the plan. Yet the successes achieved in effecting a socialist mode of production and consolidating the power of the Soviet state were considerable, especially taking into account the short time that elapsed between the establishment of Soviet power and the outbreak of the Civil War.

All land, banks, industry, transport, foreign and wholesale trade had been nationalised, and detachments of proletarians had been trained to organise socialist economy. The last was promoted by the introduction of workers' control, which soon became a form by which workers managed production. Bodies for the planned regulation of the economy—the economic councils—superceded the workers' control organisations, paving the way for important measures in the planning and regulation of the Soviet economy.

In so vast and war-torn a country as Russia, enormous difficulties had to be overcome to organise the first proletarian state and to switch the economy onto socialist lines. Under these circumstances certain errors and setbacks were unavoidable. In the first months of the socialist revolution the Russian proletariat gained a lot of experience

in destroying the old and building the new social system. Lenin rightly declared that "this experience will never be forgotten. The experience which the workers now united in trade unions and local organisations are acquiring in the practical work of organising the whole of production on a national scale cannot be taken away, no matter how difficult the vicissitudes the Russian revolution and the international socialist revolution may pass through. It has gone down in history as socialism's gain, and on it the future world revolution will erect its socialist edifice."*

The outbreak of the Civil War and the subsequent foreign intervention impeded the development of socialist planning and economy. The principal forces of the Party and the Government were diverted from peaceful construction to the defence of the revolutionary gains. The Civil War demonstrated the enormous viability of the Soviet state and the advantages of public over private ownership. The war showed how important it was to centralise economic management, and state bodies gained experience in managing industry and transport, procuring agricultural produce and distributing fuel, raw materials and food.

In spite of the progress made in economic planning in 1919-20, the disorganisation caused by the Civil War made it impossible to establish stable forms for the organisation of production and labour discipline—a stability without which the new social system could not function normally. Measures had to be adopted to achieve these ends and it was the economic policy known as War Communism that was to provide a solution.

Some time was needed after the Civil War to rehabilitate the economy and to consolidate the economic alliance of the working class with the peasantry. The discontinuation in 1921 of the surplus requisitioning** enforced during the Civil War and the introduction of a fair tax in kind was a major step in this direction. During 1922-23 wages in cash were introduced in industry, ensuring the remuneration of labour according to the quantity and quality of work done; in 1921-22 industrial enterprises were trans-

* Lenin, *Collected Works*, Vol. 27, p. 413.

** Surplus requisitioning was a method of state procurement of agricultural products at prices fixed by the state, enforced during the period of foreign military intervention and the Civil War (1918-20).

ferred to economic accounting (self-supporting) principles. 1922-24 brought a monetary reform which also did much to normalise the economy. The state budget for 1924-25 for the first time showed no deficit. In 1926 the economy regained its pre-war level. At last the conditions for economic planning had been created.

Towards the end of the Civil War the Soviet Government adopted, on Lenin's proposal, a decision to begin work on the drafting of the GOELRO, a long-term plan for the electrification of the country. The plan was formulated under Lenin's guidance. Krzhizhanovsky helped in its organisation. Lenin attached enormous importance to the mobilisation of the masses for socialist construction. "We must carry away the *mass* of workers and politically-conscious peasants," he said, "with a *great* programme for the next 10-20 years."*

Lenin laid down the general political tasks of the GOELRO plan and sanctioned its technical policy (concentration of electric power output, increased use of mineral and local fuels, building of hydropower stations, etc.), and defended the plan against constant attacks by Trotskyites, Rykovites and other enemies of socialism. The implementation of the plan began under Lenin's guidance and was therefore named "Lenin's plan for the electrification of the country".

The GOELRO plan proceeded from Lenin's theory of socialist construction and envisaged the technical re-equipment of all branches of the economy. The creation of a large-scale machine industry, the re-equipment of the economy and the electrification provided for in the plan were to raise labour productivity, and to lay the foundations of socialism. "Communism," Lenin said, "is Soviet power plus the electrification of the whole country." The GOELRO plan was a programme for translating Lenin's formula into reality.

The GOELRO plan, covering a period of ten to fifteen years, provided for a 100 per cent increase over pre-war industrial production, and a 14-fold increase as compared with 1920. It outlined the building of 30 regional power stations with a total capacity of 1.5 million kw and the

* Lenin, *Collected Works*, Vol. 35, p. 436.

increase of the capacity of all regional power stations to 1,750,000 kw. The plan also provided for the building of 20,000-30,000 km of railways and the electrification of lines on which freight traffic was heaviest. Electricity was also to be widely introduced into agriculture. Lenin considered this a method for socialising small-scale commodity production and a powerful weapon in the state's struggle against the kulak. In addition to the building of new power stations, the plan provided for the rational use of existing ones. The construction and operational plans were based on an appraisal of the country's natural wealth and took into account special features of the various regions.

Before a final target was set, specialists made a thorough study of power resources, the condition of industrial production and power machinery and the transport system.

No time was wasted in implementing the GOELRO plan which, for many years, was the keystone of all state and economic activity. The GOELRO plan was implemented in record time.

In 1931 the capacity of regional power stations had reached 2,376,000 kw instead of the projected 1,750,000 kw;

	Unit	1913	Envisaged by the GOELRO plan	1930	1935
Total industrial output	%	100	180-200	193	411
Railway freight turnover	%	100	180-200	204	393
Coal	million tons	29.1	48.3-62.3	47.8	109.6
Oil	" "	9.2	11.8-16.4	18.5	25.2
Shales	" "	—	1.6-3.3	—	0.42
Peat	" "	1.7	8.2-16.4	8.1	18.5
Iron ore	" "	9.2	19.2	10.7	26.8
Manganese ore	" "	1.2	1.6	1.4	2.4
Pig iron	" "	4.2	8.2	5.0	12.5
Steel	" "	4.2	6.5	5.8	12.6
Copper	thous. tons	31.1	81.9	44.5	75.2
Aluminium	" "	—	9.8	—	25.0
Cement	million tons	1.5	7.75	3.0	4.5
Salt	" "	2.0	4.9	3.2	4.3
Soap	thous. tons	128	573-655	233	337
Footwear	million pairs	60	300	75.4	103.6
Paper	thous. tons	197	688	495.3	640.8

in 1935 it had reached 4,076,000 kw. The table on p. 94 shows the fulfilment of the plan in the branches of industry and transport.

The 13th Party Conference (1924) noted that considerable success had been achieved in creating the main prerequisites for a planned management. These prerequisites were as follows: 1) establishment of a hard currency, 2) an organised credit system, 3) accumulation of sufficient material resources for manoeuvrability, 4) establishment and consolidation of definite forms of economic organisation, such as Soviet trusts, etc., 5) operation of a number of separate plans, notably budget plans, and some planning experience.

The conference considered the monetary reform particularly important. "The monetary reform," the resolution read, "will create a stable monetary unit which will make possible the drawing up of real financial plans for industry and trade, correct calculations and genuine accounting."

"The monetary reform will become an important prerequisite for a co-ordination between the separate links of the economy and create a real basis for effective economic planning and management."

Five years of the New Economic Policy were needed to draw up a unified economic plan to rehabilitate the economy and ensure the growth of its socialisation, combined with the urgent need to co-ordinate the development of all branches of the economy.

"All our experience has proved," read the resolution of the Twelfth Party Congress, "that socialist economic plans cannot be established theoretically or in a bureaucratic manner. A realistic socialist economic plan, embracing all spheres of industrial and agricultural relations, can be drawn up only on the basis of long-standing experience in the management of nationalised enterprises, by co-ordinating the work of different industries and appraising the results of this work." The conditions for the working out and implementation of a unified economic plan matured slowly but surely. Gosplan made the first attempt to draft a one-year plan for economic development in 1925 in its control figures for 1925-26.

Planning in the First Years of the Mixed Economy's Peaceful Development

The principal aim of the Soviet state at that time—the building of a socialist society—determined the planning features of the transition period. The methods used for economic planning in the years of peaceful construction differed from those applied during the Civil War when economic activities were of secondary importance and rigid planning and economic regulation by the state served first and foremost to mobilise the country's resources for defence. In the years of peaceful development planning was based on NEP, the policy of socialist construction in a country in which the peasantry constituted the bulk of the population.

The policy of War Communism, which had been necessary during the Civil War and the armed intervention, was not suitable for the period of peaceful construction and clashed with the interests of the peasantry. Surplus requisitioning became "the main cause of the profound economic and political crisis that we experienced in the spring of 1921".*

In 1920 agricultural output had dropped to roughly half the pre-war level. The output of large-scale industry was about one-seventh the pre-war level, transport was dislocated, commodity and food reserves exhausted. The drop in industrial output forced many workers to leave for the countryside, a situation in which counter-revolutionaries tried to exploit the dissatisfaction of the petty bourgeoisie to overthrow Soviet power.

The economic and political situation in the spring of 1921 favoured the abandonment of surplus requisitioning and the War Communism policy and in March 1921 the Tenth Party Congress proclaimed the introduction of the New Economic Policy. This policy lifted many of the restrictions on trade, allowed a certain influx of foreign capital (concessions), permitted the private lease of small and medium-sized industrial enterprises, and the hiring of labour. But this concession to private initiative did not mean that the Soviet state intended to veer from the

course of socialist construction. NEP was compatible with proletarian dictatorship and the concentration in the hands of the state of the commanding heights of the economy.

The promulgation of the law On the Replacement of Surplus Requisitioning of Food and Raw Materials by Taxes (March 21, 1921) legalised NEP. The total tax in kind was calculated to ensure the most essential needs of the state and to create a surplus of commodities with the peasants. It constituted roughly half of what had previously been requisitioned from the peasants and therefore left them grain for sale on the open market.

The Order of the Council of People's Commissars on the Implementation of the New Economic Policy (August 9, 1921) abolished rigid centralisation in industry. Many factories were subordinated to local bodies, while a certain portion of small and medium-sized enterprises were leased to private persons. State enterprises were transferred to economic accounting principles. This entitled them to buy raw materials and sell products on the home market.

With the introduction of the New Economic Policy the economic situation underwent a radical change. The lifting of restrictions on trade and the permission for private persons to lease factories revived the petty bourgeoisie and even capitalist elements. The Communist Party was still able to conduct normal socialist economic planning, for unrestricted trade was permitted only within certain limits and was tightly supervised by the state. The state was now strong enough to regulate the market and to ensure the ultimate victory of socialism. The transition to NEP did not remove the conditions for socialist planning, though, admittedly, it did make planning more difficult. At the same time planning achieved greater importance, for the fate of socialism now hinged upon a socialist victory in the economic struggle.

Perusing the draft of Krzhizhanovsky's pamphlet *Economic Problems of the R.S.F.S.R. and the Work of the State General Planning Commission (Gosplan)*, Lenin made the following remark: "Almost in every chapter you can (and should, in my belief) add a page or two about the fact that the New Economic Policy *does not change* the

* Lenin, *Collected Works*, Vol. 33, p. 64.

single state economic plan, and *does not go beyond* its framework, but alters the *approach* to its realisation.”*

The Twelfth Party Congress (April 1923) highlighted the problems of economic construction, drew the attention of the Party to the need of heightening the role of socialist planning. The resolution of the Congress reads: “Since the state remains not only the owner but also the manager of the bulk of the productive forces in industry and transport, and of the credit resources, planning principles under NEP apply to almost the same degree as they did under War Communism. Planning should grow in importance, as the economic activities of the Party expand.”

In some respects the introduction of NEP even facilitated planning, since the change to taxes in kind placed large stocks of grain at the disposal of the state and helped to put the economy on a sound footing. The overcentralisation of the Civil War period was replaced by economic manoeuvring. In distributing and redistributing the material and financial resources of socialist reproduction, the state had to take account of the market and the features peculiar to the many millions of peasant households.

Petty-bourgeois elements complicated and limited the sphere of planning. Under the new conditions directive planning could embrace only the socialist sector of the economy and the state had to resort to indirect planning or regulation of the peasant economy and also of a large share of trade and industry.

If the reorganisation of the economy along socialist lines was to be achieved, Soviet statehood had to be strengthened. With the growth of the socialist sector and the working class, its alliance with the peasantry became stronger, and served to increase the social and economic might of the proletarian state. The rehabilitation and subsequent collectivisation of agriculture required increased authority for rural state bodies.

The increase in the scope, scale and complexity of planning after the introduction of NEP extended the organisational and economic functions of the Soviet state and necessitated the creation of an efficient nation-wide

* Lenin, *Collected Works*, Vol. 35, p. 530.

planning apparatus. More flexible and less centralised bodies were therefore set up to deal with the new requirements.

The first step in setting up a new economic administration for peaceful socialist construction was the reorganisation of the Council of Workers' and Peasant's Defence into the Council of Labour and Defence. The Council of Labour and Defence was charged with co-ordinating all labour activities, and producing a unified economic plan for the R.S.F.S.R. This body was a permanent commission of the Council of People's Commissars and was directly subordinated to Lenin.

It was soon found that to function efficiently, the Council of Labour and Defence needed an executive body to make all preparations for the drafting of the economic plan, to give expert appraisals of departmental data and to make analyses of the economic situation—the State General Planning Commission under the Council of Labour and Defence was set up in February 1921 according to Lenin's directives. It was to continue the work of the Commission for the Electrification of Russia (GOELRO), and the most active members of that Commission were transferred to the Gosplan. Krzhizhanovsky, the former chairman of GOELRO, was appointed Chairman of Gosplan.

The setting up of Gosplan was followed by the organisation of a network of central planning commissions for the various economic branches, including:

(a) the Commission for Drafting the General Plan for Agriculture and Forestry under the People's Commissariat for Agriculture. It incorporated a Raw Materials Commission;

(b) the Commission for Drafting the General Plan for the Development of Industry and Examining the Production Programmes of the Separate Industries under the Supreme Economic Council. The Supreme Economic Council incorporated also the Central Commission for the General State Plan for Construction and the Commission for the Fuel Plan (under the Central Fuel Committee);

(c) the Special Transport Commission under the Council of Labour and Defence, and the Supreme Council for Freight Turnover under that Council;

(d) the Commission for Utilisation, transferred from the subordination of the Supreme Economic Council to that

of the Council of Labour and Defence, was charged with drafting the plan for the distribution of all material resources (except fuel) between the various People's Commissariats;

(e) the Commission for Planning Surplus Requisitioning and Taxes in Kind on Procured Agricultural Products and Raw Materials under the Council of People's Commissars for Food.

The distribution of banknotes and problems pertaining to the budget were made a province of the People's Commissariat for Finance, which was assisted by the relevant departments. The Council for Foreign Trade under the People's Commissariat for Foreign Trade was charged with the drawing up of the foreign trade plan.

All the above bodies were interbranch planning commissions. Most of them were newly organised. Being interbranch commissions, they were able to co-ordinate the activities of the various People's Commissariats with all organisations concerned. This co-ordination was effected by the People's Commissariats since the State General Planning Commission was only just being formed.

The Government established planning commissions to abolish duplication and lack of co-ordination, to simplify and improve the economic planning apparatus, and to ensure smooth interaction of its various departments.

The newly formed planning commissions worked under the Council of Labour and Defence or under the relevant People's Commissars, and received methodological guidance from Gosplan. Many interbranch commissions were closed down when these planning commissions became operative.

The network of planning commissions, set up according to the decree of March 17, 1921, was reorganised in 1922. In addition to the planning commissions for industry, construction, fuel, foods and agriculture, the following new planning bodies were organised: the Planning Commission for Electrification under the Supreme Economic Council, the Planning Commission for Transport under the People's Commissariat for Railways, the Planning Commission for Finance under the People's Commissariat for Finance, the Planning Commission for Foreign Trade under the People's Commissariat for Foreign Trade, the Planning Commission for Communications under the People's Commissariat

for Posts and Telegraph, the Planning Commission for Communal Services under the People's Commissariat for the Interior, and the Special Council for Servicing the Requirements of the Red Army and Navy under the Revolutionary Military Council of the Republic. The Commission for Utilisation and the Commission for Raw Materials were closed.

In later years, the network of planning commissions under the People's Commissariats underwent partial changes. When the People's Commissariat for Domestic Trade was organised a new planning commission was set up by that body. The interbranch functions of the planning commissions were curtailed and a few other minor changes made, but on the whole the network remained unchanged.

In addition to the central planning bodies local auxiliary bodies were also organised. The principle of rational regionalisation and the socialist location of productive forces could not have been effected without them. Similarly it would have been impossible to organise initiative for the rehabilitation of local economy.

Economic boards took direct charge of economic management in the provinces, incorporating planning commissions which became the executive organs of the boards. On June 30, 1921, the All-Union Central Executive Committee adopted a special ordinance on local economic boards. It provided for the establishment of regional, gubernia, uyezd (district), volost, rural and factory economic boards. All these boards were declared organs of the Council of Labour and Defence. Most of them were to act as commissions for the relevant executive committees.

The authority of regional economic boards extended to several gubernias whose aim was to eliminate red tape and solve local problems without delay. They were also to check that directives handed down by superior bodies were executed on time, guide the activities of the gubernia economic boards, submit regional plans to the Council of Labour and Defence and check that adopted plans were fully and speedily implemented. Ordinances of regional economic boards were binding on all subordinate bodies. Ultimately the regional economic boards became economic

councils of the various Union republics (with the sole exception of the Central Asian Economic Council) and all of them had planning commissions.

The gubernia economic boards improved the work of local economic bodies, co-ordinated their activities and mobilised them for the execution of both local and state tasks. The economic boards scrutinised and approved the economic plans of the gubernias, supervised their fulfilment and controlled and regulated the utilisation of material and labour resources. An ordinance of the All-Union Executive Committee of November 3, 1923 abolished the gubernia economic boards and turned their functions over to the gubernia executive committees. The gubernia planning commissions were thus subordinated to the gubernia executive committees.

The functions of village, volost and uyezd economic boards were also handed over to the executive councils.

The activities of local economic bodies were outlined in an order of the Council of People's Commissars and the Council of Labour and Defence. The greater part of this order was written by Lenin himself and called upon local state bodies to spare no effort to implement the New Economic Policy and to rehabilitate the economy. The main tasks were the collection of taxes in kind and the organisation of trade, all other problems of economic construction being co-ordinated to them.

This co-ordination was effected by the local economic boards, whose information was to help the Government in the various activities connected with the implementation of NEP throughout the whole country. Special attention was therefore attached to reports submitted by local economic boards.

The setting up of the republican planning commissions was of crucial importance to the organisation of economic planning. The transition to the New Economic Policy changed not only the structure of planning bodies, but the whole system of economic management. In industry, for example, trusts and syndicates were founded to manage industries or groups of enterprises. But this management did not rob them of their operational independence, they continued to operate on economic accounting principles and retained the right to buy and sell on the open market.

The establishment of statistical bodies facilitated planning and other economic activities. The Central Statistical Board founded in July 1918 organised statistical bodies on local level.

The transition to NEP was attended by the organisation of an efficient and ramified system of planning bodies. First among them was the Council of Labour and Defence and its planning commission; secondly, the republican economic councils and their planning commissions; thirdly, the planning commissions at the gubernia executive councils, and finally, a centralised and local planning apparatus of separate industrial branches.

When the rehabilitation of the economy was begun in 1921, attention had to be concentrated on a few key branches of the economy. Lenin advised Gosplan not to waste time and effort in trying to draft and execute a single plan under the prevailing conditions, but to solve the most urgent practical tasks as they arose. Scorning Milyutin's bureaucratic schemes for "all-embracing plans", which impeded the realisation of vital tasks, Lenin wrote to Krzhizhanovsky that "Milyutin is writing nonsense about the plan. The greatest danger is that the work of planning the state economy may be bureaucratised.

"This danger is a great one. . . .

"We are beggars. Hungry, ruined beggars.

"A complete, integrated, real plan for us at present = 'a bureaucratic utopia'.

"Don't chase it.

"At once, without delaying a day or an hour, bit by bit, single out *the most important*, the minimum number of enterprises, and *put them on their feet*."*

Lenin demanded that, in keeping with the New Economic Policy, Gosplan give high priority to the crucial problems of food and fuel. "You now know the tax in kind and other decrees," Lenin wrote to Krzhizhanovsky. "There is the policy for you. And you make as careful a calculation as possible (taking into account harvests of various sizes) how much this can produce.

"Immeasurably still more urgent is fuel."**

* Lenin, *Collected Works*, Vol. 35, p. 475.

** Ibid., p. 486.

Gosplan began its work on a unified economic plan by solving the most urgent problems, one of which was the drafting of the food supply plan for 1921-22. At the 9th Congress of Soviets Lenin said: "The entire existence of the Soviet Republic and our very modest plan for rehabilitating transport and industry are based on the assumption that we shall fulfil our general food procurement programme."*

Gosplan based its targets on the available food and fuel resources and on Lenin's numerous instructions. In a letter addressed to the Presidium of Gosplan, Lenin wrote:

"There is still hardly any evidence of the operation of an integrated state economic plan. The predominating tendency is to 'revive' all branches of the national economy indiscriminately, even all the enterprises we have inherited from capitalism.

"The State Planning Commission should organise its work in such a way as to have drawn up, at least by harvest time, the main principles of a state economic plan for the next year or two.

"It should start with food, for this is the taproot of all our difficulties."**

Lenin suggested that the food requirements for each group of consumers be calculated—fuel production, the army, state employees, industry, transport, electrification, etc., and that these estimates be based on the strictest economy of state grain. He demanded that Gosplan set not only general targets but also work out practical steps to achieve them, and himself suggested the most urgent of them. Plans "... must be first drawn up at least in rough outline, as a first approximation; but they must be ready at an early date—within a month, or two, at the outside. They must give an overall picture of the total food and fuel expenditure for the year."***

The state food supply plan for 1921-22 was worked out by Gosplan and the People's Commissariat for Food according to Lenin's directives and provided for the distribution of grain and cereals in the R.S.F.S.R. The income totalled 232 million poods of grain. In addition to this

* Lenin, *Collected Works*, Vol. 33, p. 165.

** Lenin, *Collected Works*, Vol. 32, p. 371.

*** Ibid., p. 373.

plan others were drafted for the supply of meat, fish, fats, potatoes, salt, sugar, tea and coffee.

A number of features distinguished the food supply plan for 1921-22 from the plans drawn up during the Civil War. Principally food distribution was turned into a weapon for economic renaissance, an instrument to raise labour productivity. This meant that greater norms were supplied but only to limited brackets of the population, and that a fight was waged against equalisation in distribution.

Lenin said that "the system of distributing food on the egalitarian principle has led to equalisation, which sometimes proves to be an obstacle to increasing output. The Republic must utilise the food surpluses it collects to maintain only what is needed for industry." And continued: "It is wrong to think that food distribution is only a matter of fairness. We must bear in mind that it is a method, an instrument, and a means of increasing output."*

The food supply plan was based on Lenin's instructions. Food was supplied only to consumers of first importance, namely to the workers in transport and in enterprises of national importance. In 1920 about 35 million people (excluding the army) depended on state supplies, while the 1921-22 plan allotted food to only seven million people. In 1920 the average amount of bread issued to workers on supply was 42 pounds a month, the 1921-22 plan raised the ration to 90 pounds.

The food supply plan was implemented under extremely difficult conditions. Even the modest targets could not be attained. For a start the state succeeded in procuring only 240 million poods of grain, instead of the 440 million poods planned. The necessary reductions meant that supplies were even further limited and rations cut. The original supply plan for the R.S.F.S.R. was for 232 million poods, later this was reduced to 218 million poods of which the People's Commissariat for Food was able to procure and distribute only 185-187 million poods.

In spite of these adjustments, the food supply plan was necessary for economic planning, since it had a major influence on the organisation of labour in many important

* Lenin, *Collected Works*, Vol. 32, p. 448.

construction projects. Looking back we can see how limited are the possibilities of economic planning when the state does not have sufficient material resources at its disposal.

During the first NEP years it was impossible to draw up a single state plan. The planning bodies, therefore, focussed their attention on drafting plans for separate economic branches. Planning was organised by Gosplan in close co-operation with the relevant People's Commissariats and Departments.

Gosplan's *industrial planning* began under extremely difficult conditions. Krzhizhanovsky sums the situation up as follows: "The critical shortage of fuel and food, complete dislocation of transport, and devaluation of money disorganised industry, and production programmes were drawn up only intermittently, in accordance with the limits set by the economic situation."

The production programmes for industry drawn up by the Supreme Economic Council in 1921 failed to take the requirements of the New Economic Policy into account. They corresponded, purely formally, to the available basic resources (fuel, raw material and food reserves), but did nothing to utilise local supply sources and completely disregarded the profitability of enterprises. Gosplan's instructions on drafting the production programme for 1921-22 provided for a substantial reorganisation of the work of industry, recommending an industrial plan that would satisfy state requirements, create funds for export and domestic trade, and utilise available raw material, labour, fuel and food resources.

The instructions demanded that industrial plans be based on rationalisation and economic accounting in enterprises, and that they strive to ensure their operation without loss. For that purpose enterprises were to be divided into the following groups: high-priority enterprises, enterprises about to become operative, enterprises being dissolved, enterprises let to private persons or concessioners, enterprises dependent on government raw materials, fuel and money, and self-sufficient enterprises purchasing supplies on the open market. They were also to be grouped according to the territorial principle. Workers' wages were to depend on their labour productivity.

Chief Administrations were ordered to submit several variants to their production programmes showing what would happen if 1) food and fuel were supplied on the same basis as during the first half of 1921; 2) production was stepped up; 3) the output of factories was used by them to obtain fuel and food supplies; 4) raw material and food supply was based on economic transactions between the Chief Administrations; 5) factory output doubled or trebled over the figures for the first half of 1921. The estimate was to be based on a realistic appraisal of raw material, fuel, food and labour supplies, and should state the type and quantity required in each instance.

This diffuse request proves that Gosplan was unable to hand down precise instructions. Besides, these instructions excluded the drawing up of an overall industrial plan, for it was impossible to summarise five to seven variants no matter how excellent their quality.

Production programmes for 1921-22 were worked out for all branches of state industry. Their inadequacy will be seen by a cursory glance at the table on p. 108.

The extreme non-uniformity in the levels to which the programmes were realised was brought about less by specific conditions in the relevant industries than by defects in planning. A stable currency, as we have said before, is indispensable for rational economic management and effective planning. In 1921-22 there was no stable currency, even accounts were kept in the abstract units of pre-war rubles. Thus any effective economic accounting was impossible, and it became extremely difficult to erase the War Communism policy.

The draft of the first industrial budget, drawn up by the Central Planning Administration of the Supreme Economic Council for January-September 1922 was typical in that respect. It computed everything in 1912 prices and assumed that all accounts between industry and the government would be settled by paper transfers. It completely ignored economic accounting in industries and enterprises and resulted in a budget that was more of an industrial balance-sheet than an operational financial plan. This applied equally to the separate branch plans which looked more like orders from the Chief Administrations than industrial and financial plans.

**Fulfilment of Production Programmes
by State Industry in 1921-22**

	Planned (million pre-war rbls.)	Fulfilment	
		million pre-war rbls.	per cent
Total for 28 industries	1,172.8	924.0	78.8
Including:			
mining	182.1	169.7	93.2
coal	65.2	59.1	90.6
oil	92.2	96.7	104.9
ore	3.9	3.2	81.8
salt	9.4	3.8	40.2
shale	0.2	0.006	22.9
silicates	15.85	7.1	34.6
paper and printing	39.8	16.4	41.3
tobacco	119.8	54.9	45.8
liquors	29.2	13.3	45.4
starch	1.97	0.73	37.1
rubber	16.6	29.7	179.3
matches	3.6	3.0	83.2
animal fats and bone meal	17.6	5.0	28.8
leather	100.8	47.5	47.1
textiles	254.6	263.1	103.3
metals	165.6	119.6	72.2
sugar	9.5	7.4	77.8

Gosplan was well aware of the defects in the 1921-22 programme and finally accepted only three—those for the metal, sugar and rubber industries.

The production programmes for the next fiscal year (1922-23) worked out jointly by the Supreme Economic Council and Gosplan showed a far deeper knowledge of the prevailing economic situation and were, to a large extent, fulfilled.

“The 1922-23 plan,” Krzhizhanovsky declared, “was the first to set realistic targets for production and material supplies, and the fulfilment of the programmes was a few per cent off the targets.”

During the transition to the New Economic Policy (1921-22), industrial planning was hampered by the fact that there was no economic accounting, and no remuneration of labour according to the amount and quality of work

**Fulfilment of Industrial Programmes
in 1922-23**

(Summary for the key sectors
in million pre-war rubles)

Industry	Production in 1922-23		Fulfilment in per cent
	planned	actual	
<i>A. Extractive</i>			
Coal	66.4	65.9	99.2
Oil	116.9	109.5	93.6
Ore	4.2	4.5	107.2
Salt	5.8	5.8	100.7
Gold and platinum	8.9	9.8	110.0
Total for extractive industries . .	202.4	195.6	96.4
<i>B. Manufacturing</i>			
Textile	294.7	366.7	124.4
Metal	148.4	129.0	87.0
Electrical equipment	26.9	25.9	96.7
Leather	45.2	45.1	100.0
Chemical	77.4	59.1	76.5
Tobacco	40.5	76.6	190.0
Paper	16.0	22.1	137.5
Silicates	7.7	14.0	181.8
Total for manufacturing industries . .	859.2	934.3	109.0

done. Moreover, industry was working at a loss and plans were being drawn up in pre-war currency. The appendix to the Gosplan report noted that the industrial plans of the Supreme Economic Council consisted mainly of production programmes, while only preliminary and wholly inadequate steps had been taken in drafting financial plans. Gosplan checked them for correspondence with available technical and production resources, but did not subject them to a thorough economic analysis. Practically no account was taken of prevailing economic conditions.

It was also extremely important to co-ordinate the development of industry with the other branches of the econ-

omy, and especially with agriculture. Agriculture provided a considerable share of the raw materials used by industry, and peasants were important consumers of industrial goods. In 1922-23 agricultural raw materials accounted for 18 per cent of total raw materials, while farming produce accounted for 54 per cent of the urban population's consumption. At the same time, the countryside consumed 37 per cent of the marketable industrial output. At first it was impossible to ensure a co-ordinated and balanced development of industry and agriculture with the resultant "sales crisis", which hit the economy in the autumn of 1923.

It was this discrepancy between prices for industrial and agricultural goods that led to the 1923 sales crisis. The relation of prices for industrial goods and for agricultural produce (the 1913 ratio being considered as 100) began to change in 1922-23, and prices for industrial goods shot up while those for agricultural produce fell. Although equal price proportions were not essential after the Revolution, yet the 1923 discrepancies were excessive and resulted in the emergence of a disproportion between industry and agriculture. The objective causes of the 1923 sales crisis were the uncontrolled development in the post-war years of small-scale commodity farming and kulak households and the blind operation of the law of value; the subjective causes were the violation of the law of planned, balanced development, and the price policy of the Supreme Economic Council, which was voluntaristic and completely untenable with the law of value.

The New Economic Policy imbued the small-scale commodity producer with new life, lifted many of the restrictions on trade, and brought a rapid increase in labour productivity and output. It was much easier to rehabilitate peasant production than industrial production, for the technical level of agriculture was very low, and the equipment extremely primitive. By 1923 production and labour productivity had been rehabilitated to a far greater extent in agriculture than in industry, a difference which changed the pre-war ratio of the value of industrial and agricultural goods.

In the autumn of 1923 the difference in the growth of the labour productivity in industry and agriculture (the "labour gap") reached 163 per cent over the pre-war period.

All other conditions being equal, the value of agricultural produce should have sunk, an exchange of goods between industry and agriculture could then have continued in spite of the labour gap without violating the law of value. True, such equivalent exchange might have made it unprofitable for the farmers to buy industrial goods and might have made them resume natural economy.

At the same time the "price gap" (320 per cent) greatly exceeded the labour gap. Prices for industrial goods by far exceeded their value and industrial overheads were extremely high. Some trusts were influenced in their business methods by ruthless Nepmen (speculators brought to the fore by the NEP period), and used their right to sell output on the open market to inflate prices and thereby increase their working capital. The anti-state activities of the Trotskyites, too, contributed to the deterioration of the economic situation. Prices for bread and other agricultural produce remained low and the money realised by the peasantry from the sale of grain devaluated rapidly. Under these conditions it became unprofitable for the peasants to buy the products of urban industries—a situation which led to the sales crisis, and the ensuing adverse effects on industry.

The 1923 sales crisis differed fundamentally from capitalist crises. It was, in fact, no more than a temporary economic difficulty that neither impeded the growth of industrial and agricultural production, nor stopped the steady rise in the living standard of the people. The sales crisis was overcome in a few months by steadily cutting the prices of industrial goods. On October 1, 1923, the price gap was 310 points, on October 1, 1924, it had sunk to 146 points.

The sales crisis highlighted the problem of finding a market for industrial goods, and forced the planning bodies to study and organise the home market. It became important to establish a strict correspondence between the production and consumption of industrial goods. Since at that time the bulk of industrial goods was sold on the peasant market, industrial development had to be co-ordinated with the peasant economy. Having drawn a lesson from the 1923 sales crisis, the 13th Party Conference demanded "that future price policy be co-ordinated to a greater

extent with the peasant market and that the rate of industrial development match the increase in the capacity of the market". The conference also resolved that "the primary duty of Gosplan is to study current market conditions systematically and to work out measures to influence them".

In carrying out the decisions of the Party, Gosplan made extensive studies to determine the market capacity and the conditions affecting price formation. The cost of industrial production, wholesale and retail prices of industrial commodities, and the "discrepancy problem" were given extra attention in the drafting and implementation of plans.

In working out the industrial development plan for 1923-24, Gosplan studied the programmes of 28 branches out of which 19 were accepted. The programmes approved by Gosplan accounted for 40 to 45 per cent of the gross output of state industry. In 1923-24 the Council of Labour and Defence approved only the programmes for the coal, oil, metal, power and sugar industries. The Supreme Economic Council failed to submit plans for 1923-24 for all industries although on the average the programmes approved by Gosplan were 108 per cent fulfilled.

In its survey of industrial planning, Gosplan wrote to the Council of Labour and Defence: "In 1922-23 money was rapidly being devaluated; the organisation of industry was weak, many defects existed in the accounting system, and trusts and industrial enterprises would not and could not submit accurate data for drafting plans. The planning campaign for 1923-24 was therefore badly organised: instead of studying plans of whole industries, Gosplan was compelled to scrutinise the plans of separate trusts that had been badly drawn up, irregularly submitted and then often after a long delay." A lot of preparatory work was needed to organise industry according to the principles of the New Economic Policy, to plan costs and prices, to draft financial plans, and to co-ordinate industrial plans with those of agriculture. "The first three-year period from 1921-22 to 1923-24," Krzhizhanovsky said, "consisted of painstaking work organising the semi-anarchical industrial front."

Gosplan took steps to improve industrial planning for the period 1924-25. The records of the meetings of Gos-

plan held on March 29 and April 7, 1924, give a picture of the problems facing the planning bodies at that time.

Fulfilment of Production Programmes
by State Industries in 1923-24

(in million pre-war rubles)

Industry	Planned	Fulfilment	
		absolute	per cent
Coal	76.8	84.7	110.2
Oil	130.8	125.8	96.2
Ore	3.7	4.5	119.9
Asbestos	1.6	1.7	107.7
Metal	158.3	191.0	120.9
Electrical engineering	41.7	38.5	92.3
Total for enumerated branches of heavy industry	412.9	446.2	108.0
Rubber	28.4	31.8	112.3
Sugar	40.0	49.4	123.2
Starch	2.9	2.2	74.0
Winemaking	1.5	0.9	64.6
Total for enumerated branches of light industry	72.8	84.4	115.9
Total for enumerated branches of heavy and light industry	485.8	530.1	109.2

The meeting censured the lack of discipline in the drafting and implementation of plans. Krzhizhanovsky said that the Supreme Economic Council was obviously unable to arrange for all industrial plans to be submitted to Gosplan on time. And that the production programmes being submitted to the Supreme Economic Council and approved by Gosplan had no legal validity, and were not fulfilled by many trusts and syndicates. Strumilin, a known Soviet economist, noted that many "production programmes are approved after they are fulfilled or otherwise".

In his report, A. N. Dolgov, Chairman of the Industrial Planning Department of the Supreme Economic Council, declared that the policy of price-cutting had made finance the most difficult branch of industrial planning. Gosplan had to become more flexible if it was to plan under NEP conditions. It was pointed out at the meeting that the "Workers' and Peasants' Inspection accuses Gosplan of adhering to War Communism formulas". Gosplan's Industrial Department was also accused of lacking initiative and of operating inefficiently. It was proposed that the Supreme Economic Council and Gosplan should bear greater responsibility for the fulfilment of plans. The Chairman of Gosplan declared that "neither Gosplan nor the Supreme Economic Council report on their activities to the supreme bodies of the republic".

The Presidium of Gosplan gave instructions on the drawing up of the 1924-25 industrial plan only in June 1924. The Presidium called a meeting to decide on measures to put industrial planning and production management on a sound footing. The meeting also noted that the weakest links in planning were those of production and finance. The resolution read: "The Presidium of Gosplan in conjunction with the Supreme Economic Council and the People's Commissariat for Finance notes that ... the plans large-scale state industry submits to Gosplan for approval are of little value as regards their content and co-ordination with the other branches, and fail to take account of the output of state, local, artisan and other industries; furthermore, they often are handed in only after great delay: for example, the plans for 1923-24 had not been handed in by July 1, 1924."

The following plan of campaign was adopted for the drafting of the 1924-25 plan: Gosplan was to work out directives based on the state policy for grain and raw material prices, taking into account the capacity of the urban and rural markets at the set price level, the prospects of supplying industry with raw materials, fuel and labour force, the interests of state accumulations, the prospects of financing and crediting industry, the prospects of construction, export, etc. The financial and production plans for industry were to contain full and systematised data on financial and production prospects for the follow-

ing year. Plans were to have the force of directives, and plans for the separate industries and trusts were to be modelled on them. The industrial plan was to include, firstly, the technical and production plan and the plan for fuel and raw material supply; secondly, income and expenditure estimates, and estimates for the key items of output; thirdly, the financial and commercial plan and, finally, the plan for the realisation of produce. The U.S.S.R. Supreme Economic Council and the republican Supreme Economic Councils were obliged to draw up cumulative plans for state industry.

Gosplan considered 29 programmes for 1924-25 and approved 22. The Council of Labour and Defence adopted 20 programmes. The production programmes approved by Gosplan embraced 65-70 per cent of the total output of state industry.

In 1924-25 plans were drawn up for a greater number of industries and further successes were scored in production, technical and financial plans. Felix Dzerzhinsky* noted that in 1924 the Presidium of the Supreme Economic Council attached considerable weight to planning. "The plans were based not so much on technical and production potentialities for supplies of fuel, machines and labour force, but relied primarily on an analysis of the potentialities afforded by budget-finance and technical and market potentialities."

Yet the "planning campaign" of 1924-25 had many defects. Gosplan noted that the appraisal of the economic conditions shaping at that time was a feature typical of industrial planning in 1924-25. But a major error was made in appraising market requirements and it therefore became necessary later to revise the programmes for all industries. Besides, there was no cumulative plan for state industry.

A letter addressed by the Supreme Economic Council to the Council of Labour and Defence on June 30, 1925 read: "1924-25 can be regarded as the first year of organised industrial and financial planning." It added that the Supreme Economic Council "had not succeeded in drafting

* Felix Dzerzhinsky (1877-1926)—an outstanding functionary of the Communist Party and Soviet Government, Chairman of the Supreme Economic Council and leader of Soviet industry.

**Industrial Production Programmes for 1924-25
and Their Fulfilment**

(in million pre-war rubles)

	Plan	Actual fulfilment	Per cent of fulfilment
Coal	88.0	90.4	102.9
Oil	144.2	151.3	105.0
Ore	6.7	7.5	110.8
Salt	6.1	5.7	99.3
Asbestos	2.1	2.5	117.2
Metal	300.8	383.7	127.5
Electrical engineering	63.0	64.4	102.2
Timber	124.8	150.3	120.4
Total for heavy industry	735.9	855.8	115.7
Cotton	381.0	373.4	98.0
Linen	39.4	40.9	103.9
Leather footwear	96.0	113.1	117.9
Rubber	65.3	97.3	149.0
Matches	6.5	9.4	144.3
Paper	40.7	53.1	130.4
Sugar	69.0	57.3	83.0
Tea	26.2	27.0	102.8
Tobacco	10.1	11.2	111.4
Starch	3.0	3.1	104.5
Total for light industry	800.6	849.0	106.0
Total for enumerated industries	1,536.5	1,704.9	111.0

an overall plan for Soviet industry" and that "plans were handed in late and irregularly".

The urgent need for long-term planning became obvious at the end of the rehabilitation period. The successful rehabilitation of light industry, and the normalisation of fuel supplies facilitated the rapid development of the metal industry, the key branch of heavy industry, even in the restoration period. The 13th Party Conference held in January 1924 noted that "the metal industry must, within

the near future, be given high priority and receive far more state assistance, especially as regards finance, than it did in the preceding year". The 14th Party Conference held in April 1925 resolved to increase the metal industry's programme for 1924-25 by 26 per cent and to begin work on a plan to re-equip existing metal factories and build new ones. These measures were to pave the way for socialist industrialisation.

The introduction of tax rates by Gosplan, the People's Commissariat for Agriculture, and the People's Commissariat for Food were the first steps in establishing a planned and regulated *agriculture* under NEP. To fix tax rates it was necessary to investigate agricultural potentialities and determine the channels through which agricultural produce could be realised. It was extremely difficult to compute sown areas, yields and marketable output. The planning and statistical bodies had to compute these data by gubernias and this involved an enormous amount of work. But in the absence of direct accounting this information was valuable to the government.

In the spring of 1921 one of Gosplan's first steps in planning agricultural production was to see how agricultural production in the drought-stricken south-eastern regions could be rehabilitated.

NEP created the need for economic regulation (indirect planning) of small-scale commodity farming, thus helping to combine state interests with those of the peasants and thereby strengthening the alliance of the working class with the peasantry. Agriculture was being guided along the road to collectivisation. During the transition period the most important sectors in Soviet economy were the socialist and small-scale commodity producers, backed by the two main social classes—the working class and the peasantry. The main content of the transition period economic policy, and hence also of economic planning, was the unbreakable union of these classes in their joint struggle, under the leadership of the workers, against capitalist elements and for the building of socialism. The policy of the Communist Party was always based on this strict co-ordination of industry and agriculture and on the unity of the working class's interests with those of the peasantry.

The main lever used in indirect planning (regulation) was the control of prices for means of production, needed by the peasant economy, agricultural produce, and goods of mass consumption bought by the peasants. The market and prices were important to the regulation of small-scale commodity production not only from a social standpoint but also because the development of state industry depended on the domestic, and particularly on the peasant market.

At first small-scale commodity production was influenced mainly through the sphere of distribution or through the organisation of trade. In practice, this meant the establishment of a wide network of consumer and marketing co-operatives, the organised procurement of agricultural produce by state bodies and industry, and the socialisation of the retail trade for goods produced in state enterprises. Later the influence exerted through distribution was extended also to production.

Co-operation became more and more important in the development of agriculture. In 1928 the state and co-operatives together controlled close on 80 per cent of the rural supply of industrial goods and about 90 per cent of all rural procurements. Another measure that helped the state to control rural trade and strengthen the links of peasant production with socialist industry was the system of forward contracts. According to incomplete data this contract system embraced, in 1929, as many as six million peasant households, while 100 per cent of the total procured cotton, 80 per cent of the tobacco, 36 per cent of the grain, 30 per cent of the oil-yielding plants and 79 per cent of the sugar beet were delivered according to forward contracts.

This system dealt a heavy blow to anarchy in agricultural production. Cotton and sugar beet growers were the first to conform to plan, the volume of output and the prices for these products being no longer uncontrolled but calculated on the basis of forward contracts signed between state syndicates and peasant co-operatives. The sugar and textile syndicates gave the farmers definite orders, undertook to purchase their products at favourable prices and issued them seed and money loans. Peasant households were thus given definite orders and also the means to achieve them.

Co-operation and contracts thus became the Soviet state's first means to socialise agricultural production and to introduce planning principles into agriculture.

The taxation policy was another economic measure used to regulate agriculture. The taxation policy had a distinctive class character. In 1929-30 every kulak household paid an average of 172.49 rubles in agricultural taxes, while non-kulak households paid only 18.09 rubles. Collective farmers and poor peasants were granted substantial tax privileges and in 1927-28, 40 per cent of all households were exempted from taxes because of their insolvency. The state budget and credit system increased investments in agriculture in order to stimulate its development and gave substantial material support to its new social system. Between 1923-24 and 1929-30 the state allocated 1,758 million rubles to state farms and about 1,324 million rubles to collective farms and agricultural co-operatives. Besides, collective farms received 400 million rubles worth of property free of charge which had been expropriated from kulak households.*

The following examples show how promptly peasant economy reacted to state measures. The unfavourable prices for industrial raw materials between 1925 and 1927 decreased areas under industrial crops by nine per cent. In the second half of 1926-27 prices were raised and in 1927-28 the area under these crops increased by seven per cent, sugar beet by 24 per cent, cotton by 15 per cent and sunflowers by 12 per cent. The area under grass increased from 1923 to 1927 by 344 per cent with the granting of tax privileges.

Before 1927 most agricultural measures were planned on a Union republican level and only a few were included in the programmes of all-Union bodies (irrigation work in cotton-growing areas, equipment and fertiliser supply). When Gosplan submitted the control targets for 1927-28, it proposed that a cumulative agricultural plan be drawn up. In addition to the above measures, the all-Union plan was to provide for: 1) planned management of construction work carried out by agricultural co-operatives, 2) the

* Prices quoted here and hereinafter refer to the scale of prices and rate of the ruble valid up to January 1, 1961.

creation of funds for the co-operation of poor peasants, 3) a plan for the accumulation of share-payments, 4) the introduction of forward contracting, 5) the supply of high-grade seed, 6) land improvement, 7) credit investments, and 8) the development of rural industry.

It cannot be denied that in spite of sharp fluctuations in the fulfilment of plans substantial successes were scored in the state regulation of peasant farming from 1913-29. This can be more clearly seen from the summary below.

Development of Soviet Agriculture Between
1913 and 1929

	1928	1929
Gross output (1913 taken as 100)	124	121
<i>Crop farming</i> (1913 taken as 100)		
Gross output of grain	90.8	94.4
Marketable output of grain	36.8	58.0
Gross output of cotton	110.5	119.0
" " " flax	71.6	81.5
" " " sugar beet	93.0	58.0
" " " oil-yielding plants	161.9	149.8
<i>Animal farming</i> (1916 taken as 100)		
Horse population	94.6	96.9
Cattle "	118.5	115.6
Sheep and goats	126.0	127.8
Pigs	126.1	103.0

The technical basis of agricultural production also changed considerably. Agricultural power capacity was approaching the pre-revolutionary level: in 1929 there were 19 hp per 100 hectares of sown areas, as compared with 20 hp in 1913-17. There were half as many primitive manual farming implements, while the number of horse-drawn ploughs had doubled.

With Government assistance productive forces were being rehabilitated and agricultural output expanded on a new social basis. Before the Revolution, landowners and

kulaks were the main force in agriculture; after the Revolution the middle peasant became the central figure. Co-operation and links with state industry promoted the socialisation of agriculture, and prepared it for collectivisation. The influence exerted by the socialist sector on small-scale commodity production diminished the sphere controlled by the law of supply and demand.

By its very nature small-scale commodity production was unsuitable for extended reproduction. If small-scale commodity production had been maintained, the disparity between town and countryside would not have been eliminated and the village could never have been raised to the level of the town. The development of small peasant households lagged behind that of industry and failed to satisfy the ever growing requirements for agricultural produce. In 1928-29, for example, the state's annual grain requirement was 500 million poods, while only 300-350 million poods could be procured on the market. At the same time small-scale peasant farming was a breeding ground for kulaks and strengthened petty-bourgeois influence over agricultural production. There was a real need to reorganise it along socialist lines.

The development of *trade* and *fiscal economy* was an important element of the New Economic Policy. Trade, money circulation, credit and the budget were all closely linked with industry and agriculture, and exerted a strong influence on their development. Under these conditions it was all important for the state to regulate the market. The 11th Party Conference published the following directive: "Since there is a market and its laws cannot be ignored, the state must gain control over it with planned economic measures. These should give due regard to current market processes, and ensure state regulation both of the market and of money circulation." This meant that trade, budget and credit plans acquired a new importance.

The planning and regulation of trade did not immediately develop into a planned commodity circulation. First an apparatus for the regulation of trade had to be set up. Early in 1922 syndicates were formed to co-ordinate the trading activities of trusts and to unify their procuring and financial activities. A trade regulation committee was set up in February 1922 and incorporated into the Supreme

Economic Council, at the same time a Commission for Domestic Trade was founded by the Council of Labour and Defence. The crediting of trade became one of the most important functions of the State Bank, founded in February 1921. Commodity exchanges began to function in 1922-23. They registered trade transactions and price levels and thus provided essential data for the regulation of trade. In 1924 the Commission for Domestic Trade was reorganised into the People's Commissariat for Domestic Trade.

The drawing up of the procurement plan may be considered as the first step in the planning of trade. Krzhizhansky said in 1927: "From drafting plans for increasing procurements of grain and raw materials, we shall evolve to the planning of industrial goods supply, to general problems of price policy and, finally, to the main problem of establishing a balance between town and countryside. Problems connected with the trade network, with the state and development of co-operatives, with a regionalised study of the domestic market and the differentiation in the commodity demand, have only recently been assigned to Gosplan."

State regulation of trade was based on the monopoly of foreign trade, nationalisation of large wholesale trading establishments, the state trading apparatus and state-owned commodity stocks. The taxation, credit and tariff policy served the same purpose. From the very start the planning of commodity distribution covered two distinct spheres: 1) the state sector of the economy and 2) trade between the state and co-operative sectors—between the state and the population. Regulation of the second sphere was more difficult, especially with the prevalence of small-scale commodity production and capitalist elements.

The sales crisis in the autumn of 1923 forced state bodies to scrutinise commodity circulation and, in particular, prices. Prices depended on a multitude of factors. Collective price maintenance had to be introduced to regulate the grain market and bread prices, i.e., it was necessary to push down the prices of private sellers by setting price limits for grain and instructing state and co-operative procurement agencies to keep within these limits. The state also had to lay in enough grain stocks to keep a steady

balance on the market, especially in the second half of the year when kulaks tried to capitalise on the bread shortage by selling bread at speculative prices. Regions which had suffered from a poor harvest and large industrial centres also had to be supplied with cheap bread so as to stop speculators from thriving on the misfortunes of the people; the state had to develop the retail network and bread-baking industry in large towns; had to adjust transport rates so as to create incentives for the delivery of grain to large towns and for export; had to distribute the procured grain among the various regions in accordance with their particular harvests.

The state supplied the trading network with industrial goods which were then exchanged for agricultural produce and procured stocks when agricultural taxes were due. One of the methods used to fight private capitalists and maintain prices at the desired level was that of "commodity intervention", i.e., the sale of large stocks of goods at fixed prices. In 1924-25 millions of tons of bread were sold in that way. Economic measures were combined with administrative measures; thus it was that the transport of grain from certain regions was temporarily prohibited, and only limited amounts of grain were accepted for grinding from private persons, etc.

The answers Lenin gave to Ransom in 1922 helped clarify the Soviet price system. Lenin said: "The Nepmen cannot directly influence prices because they are not producers. The foreign trade monopoly, I must say in passing, will help us to keep the Nepmen in hand, for, without consulting them, prices will be determined by the price of production abroad plus the extra charge imposed by the state for the purpose of subsidising production."* Lenin considered that in determining prices not only production but also the redistributive role of prices should be taken into account, i.e., they should include the mark up for subsidised production.

From the very start Gosplan actively intervened in the process of price formation by regulating prices. Gosplan recommended that the following three factors be considered in fixing prices for consumers supplied according to plan:

* Lenin, *Collected Works*, Vol. 33, p. 409.

a) the cost of production, b) market price, and c) effective demand of state consumers determined by budget appropriations. This helped to free prices from dependence on the supply and demand situation.

An interesting example of planned regulation in the domestic market was the campaign begun in February 1924 to prevent price increases on bread and other essentials caused by the monetary reform. Government measures foiled the attempts of private capitalists to raise prices as a counter to the monetary reform and even succeeded in lowering prices and raising real wages.

The table below shows the headway made by planned grain and raw material procurements by the mid-twenties.

Grain Procured According to Plan
(million poods)

	Marketable grain	Procured according to plan	Percentage of total marketable grain
1924-25	490	279.1	56.9
1925-26	745	513.7	68.9
1926-27	820-840	648.2	78.0

The next task was to extend planning to the sale of industrial goods. With this end in view computations were made from 1924 onwards of the demand, aimed not only at determining the effective demand but also at creating conditions conducive to an increase of purchasing power and public welfare.

General contracts between syndicates, embracing an ever growing share of the marketable produce, and trading organisations helped to plan sales. These contracts, introduced in 1925, co-ordinated production and trade plans. From the last quarter of the 1924-25 fiscal year, annual plans for the supply of industrial goods, which were submitted for approval to the Council of Labour and Defence, began to play an important part in stimulating the procurement of agricultural produce and in regionalising deliveries and sales.

The greater the socialist sector's share in trade turnover, the more effective became the planning and regulation of trade. Retail trade growth and price formation, beneficial to the socialist state, indicated the success of the planning and regulation of trade. As a result the retail trade turnover increased by 170 per cent between 1923-24 and 1927-28.

The main problem that had to be solved was the establishment of a correct correlation between prices for industrial and agricultural goods. This was to be achieved by the abolition of the 1923 "gap" and the creation of a correlation that would promote socialist industrialisation and the development of the peasant economy. As compared with 1913 the 1927-28 price indices for industrial goods differed little from those for agricultural goods: the wholesale agricultural index was 156, the industrial—187; the retail agricultural index—209, and the industrial—205.

Thus trade and price planning largely succeeded in curbing uncontrolled market fluctuations, although the influence exerted by the market on prices was felt throughout the transition period.

In addition to trade, the state undertook the planning of the budget. Under NEP, budgetary planning consisted of primitive estimates. When the first budget plan was drawn up in 1921 there was no hard currency, no sound economy and no planning experience. The budget was based on a rapidly devaluating ruble and was therefore of little practical value. The first budget to pay any attention to the money economy was the one drawn up for the first nine months of 1922. It was drawn up in pre-war rubles but was enforced in the new Soviet currency, the rate of exchange being fixed from month to month. This budget was an improvement, but was still far from realistic.

Realistic budget plans could be drawn up only when a hard currency had been established. Thus it was that the 13th Party Conference (January 1924) called the 1923-24 budget, based on the reasonably stable chervonets ruble, the first success in NEP financial planning.

The first deficit-free budget was drawn up in 1924-25 under the stabilising influence of the monetary reform. Among the many difficulties confronting the Soviet state during the transition to NEP was the absence of a

smoothly functioning state apparatus, able to conduct a workable economic policy, and carry out the ever increasing organisational and economic functions of the state. In spite of difficulties, the Communist Party succeeded in raising the efficiency of the state apparatus and made headway in economic regulation and planning. There is a vast difference between directive planning and regulation. Regulation means that the plans drawn up for the various branches of the economy and their fulfilment are approximate. At the Third Congress of Soviets held in 1925, Dzerzhinsky said that the state plan was based not so much on dates and figures, which could contain a thousand and one mistakes, but on a declaration of economic policy under prevailing conditions in respect to prices, monetary reform, credit, state budget, organisation of trade, export and import, appraisal of the relative importance of various industries, wages and labour productivity, taxes, etc., in effect a policy aimed at channelling economic activity along a definite course set by the Soviet Government.

The end of the restoration period and the beginning of economic reorganisation, the growth of socialisation and the urgent need to co-ordinate industrial and agricultural development made it possible to pass from drafting plans for individual branches to drafting annual plans for the whole economy.

Struggle for Unified Annual and Long-Term Plans. First Five-Year Plan

During the first five years of the New Economic Policy all attempts to work out a single economic plan had been in vain. The transition to unified yearly and five-year economic plans had been retarded by the many difficulties posed by the building of socialism in a peasant country, the hard task of restoring the war-damaged economy, and the class struggle. The Twelfth Party Congress held in 1923 pointed out that "All-Union planning consists primarily in controlling and directing the work of separate regions and in the organic unification of regional plans and economic tasks of all-Union importance into a single economic plan for the whole of the U.S.S.R."

But before a unified plan could be considered, there had to be realistic plans for the separate branches, a stable currency and a deficit-free budget. "Efforts to draw up a unified economic plan were well underway," Krzhizhansky wrote, "slowly but surely we were approaching our aim by drawing up plans for individual industries."

For a long time Gosplan had focussed its attention on separate branch plans which would give planning bodies the necessary experience to draft a single plan.

At a meeting of the Gosplan Presidium held on March 11, 1924, Tsyurupa,* Chairman of Gosplan, declared: "We must realise that the most important thing in planning is the balance-sheet of the economy. Gosplan will have to resume its work in this direction. We must thoroughly discuss this problem which we considered, at first, abstract, but which in reality is of enormous practical importance." The problem of drawing up a balance-sheet for the economy had been raised before, but now the Central Statistical Board was ordered to draw up the balance without further delay.

Slowly the prerequisites for a unified plan were evolving. Important improvements were made in the draft plans for separate industries in 1924-25. The programmes of the various industries were better founded and a stable yearly budget was drawn up. For the first time planning covered practically all procurements including grain and raw materials whilst planning bodies stipulated the sizes and sums of financial allocations and introduced commodity supply plans. Planning was extended also to the complex banking system.

Gosplan took advantage of the favourable conditions and in the spring of 1925 began to work on the control figures (estimates) of economic development for the 1925-26 financial year.

But something longer than an annual plan was necessary. Long-term plans for separate branches had been drafted as early as 1923 and now the question of drafting

* Alexander Tsyurupa (1870-1928), well-known functionary of the Communist Party and Soviet state, Vice-Chairman of the Council of People's Commissars and Council of Labour and Defence, Chairman of the U.S.S.R. Gosplan and People's Commissar for Foreign and Domestic Trade.

a five-year economic development plan was introduced. Not only economic bodies but also the general public realised that long-term planning was a necessity. In January 1925, Krzhizhanovsky, then Chairman of Gosplan, said: "While in Leningrad, I repeatedly heard the following demands: 'Comrade Krzhizhanovsky, we shall fight you tooth and nail if you fail in your main task. Give us something to look forward to. To work well we must know what the future has in store for us.'" Krzhizhanovsky added that the Leningrad economists had drawn up a five-year plan for the development of their local industry saying that "it could be used as a working hypothesis". In 1925 Gosplan began to work on the first five-year plan.

The First Congress of planners held in March 1926 examined the control figures for the development of the 1925-26 economy and the rough draft for the five-year plan covering the period from 1925-26 to 1929-30. The congress considered the first attempt at synoptic planning a great success and it became the subject of lively discussions. Let us first look at the steps that had to be taken to draft a unified annual plan.

The control figures for the development of the 1925-26 economy were not an overall state plan, nor were they binding on all departments, republics and regions. The Gosplan ordinance dated August 13, 1925, explained that the control figures were handed down to the various sections and departments for guidance, but that they were allowed to draft other variants provided that the deviations from the control figures were well-founded and that a detailed explanation was given of the reason for the deviation.

The control figures gave some general and mutually co-ordinated indices for economic development: the gross and marketable agricultural output, gross and marketable industrial output, principal types of agricultural products in physical terms, sown areas and the cattle population, output of key industries, labour employed in industry, wages, labour productivity, trade turnover, money supply, price indices, export and import volumes, freight turnover, capital expenditure, and the total size of the budget. The 1925-26 control figures contained no data on the national income, industrial output or corresponding balances in

physical terms, nor any material supply plan for capital construction, or targets for social and cultural construction. Targets were not broken down into departments, regions, etc.

The first control figures were not approved by the Government. They were considered by the Council of Labour and Defence in September 1925. The report published read: "The Council of Labour and Defence considers the drawing up of control figures an important milestone on the road to a planned socialist economy. This is a first attempt and as such naturally cannot be perfect. But the control figures can be used for guidance in co-ordinating the various aspects of economic life—the main task of the regulating and managerial bodies of the country's administration. Since the control figures plot only a general course for the administrative bodies, the practical work of the various departments and state economic bodies will naturally involve a critical study of these figures. The experience of these bodies will enable Gosplan to correct the figures and draw up a realistic economic budget for the U.S.S.R."

While recognising the enormous importance of the work conducted by Gosplan, the Council of Labour and Defence criticised the defects in the control figures. It noted, for instance, that the failure to chart the trends of economic development in the form of an exact balance impaired the directive nature that control figures must have when discussing departmental budgets and production programmes for the various economic branches. It was also noted that the control figures published by Gosplan covered mainly the sphere of production and did not give a clear picture of the distribution of the national income. They concluded that in drafting the control figures far too little attention had been given to the social aspect of the economy.

In spite of their shortcomings the control figures helped to prepare the branch plans for 1925-26 and also to shape the methodology of planning. On August 14, 1925, the Council of Labour and Defence published a manual on the methods for drawing up production and financial plans in industry and ordered the Supreme Economic Council to be guided by the control figures set by Gosplan for 1925-26.

Trotskyites,* Mensheviks** and bourgeois specialists participated in working out the control figures and especially in drafting their text with a resultant adverse effect on the methodology of planning, in general, and on the control figures, in particular.

The enemies of socialism attempted to divorce the plan from its central task—the building of socialism in the Soviet Union. In a report to the Council of Labour and Defence, the Trotskyite Smilga said that in working out a serious plan it was wrong to proceed from an a priori assumption. The pro-Trotskyites considered the building of socialism just such an assumption, and the control figures therefore made practically no provision for the expansion of the socialist sector. In the introduction to the control figures the planners had to make the following admission: "We have failed to show what is happening to the state-nationalised sector, whether it is expanding, what new social layers and classes are forming and in what direction they are evolving."

But the main shortcoming of the control figures was not their failure to consider the state sector or the new class formations, but the fact that they made practically no provision for the growth of socialist forces in agriculture or for decrease in the private sector's share of industry and trade. The control figures for 1925-26 envisaged a decrease in the private sector's industrial output of only 0.4 points and of 1.7 points in the middleman trade. The actual decrease in the share of private capital in that year was 4.1 points in industry and three points in trade. But the authors of the control figures were so scared of their "maximalism" in socialisation that they declared that the future mission of planning was to "firmly maintain achieved positions and to advance at least one step every year towards socialism whenever economic conditions favour such a step".

The principal defect of the 1925-26 control figures was the wrong approach to the problem of socialisation and the policy of curbing private capitalist relations. The

* Trotskyism—a variety of Menshevism.

** Menshevism—a variety of international opportunism, hostile to Marxism-Leninism.

methodological approach of extrapolating static and dynamic factors was also entirely wrong. In essence this was an attempt to graft economic structure and development rates of capitalist Russia onto the practice of Soviet socialist construction. A thesis on the report on "The Process of Restoration and the Laws Controlling It" drawn up in connection with the work on control figures said: "Both in theory and in practice the restoration process tries to restore the old regime. . . . The main law of the *restoration process* is a *tendency* to restore pre-war proportions between the *key* branches of the economy." These so-called laws of the restoration process were styled "iron laws of economic inevitability" and were allied to the demand to develop kulak households and the attempt to deprive plans of their active and purposive nature. The thesis also declared that "the time had come to consider the problem of teleological limits".

This methodology was intended to restore the backward economy of capitalist Russia. However, in assessing the 1925-26 assignments it should be remembered that they were drafted by a great many people and that in the final published version many of the Menshevik and Trotskyite proposals had been corrected and modified.

The Plenary Meeting of the Party Central Committee held in April 1926 noted considerable errors in the economic plans for 1925-26. It also declared that the objective economic difficulties in the current year had been aggravated by defects in the planned management of the economy. These defects lay in exaggerated grain procurement, export-import, money and credit plans, and hence, in the industrial development and capital construction plans.

The table on page 132 shows the fulfilment of the 1925-26 control figures of the key indices. The figures illustrate the percentage change over the preceding year.

The defects were due to methodological mistakes. The extrapolation of static and dynamic factors precluded a scientific analysis of economic processes and made it impossible to work out proper balances. This methodology made it easy for saboteurs to disorganise the plan.

In 1925-26 planning became more efficient. The first cumulative industrial plan was drawn up by the Supreme Economic Council and embraced 85 per cent of the total

	Targets set by control figures	Actual fulfilment
Output of large-scale industry	49	43
Agricultural output	26	20
Marketable output of agriculture	40	20
Exports	152	15
Imports	53	13
Loans	119	35

qualifying* state industry. In addition to the cumulative plan, a plan was drawn up for capital construction and 36 plans for various branches of the economy. Gosplan accepted 32 plans and the Council of Labour and Defence approved the general plan and the plans for capital construction, fuel, metal, basic chemical, sugar, winemaking, aniline dye and building material industries. The plan was long-delayed and contained many serious defects, most important of which Gosplan considered "the shallow knowledge of industry's internal turnover and of the economic links between separate industries and between industry and the other branches of the economy, the absence of data on the capacity of the principal power stations, industrial equipment and the effectivity of capital outlays". There was also a complete absence of detailed data on the financial position of industry.

The extent to which the cumulative plan for 1925-26 was fulfilled can be seen in the table on page 133.

Criticism of the control figures for 1925-26 and the mistakes and miscalculations discovered in the course of their fulfilment made Gosplan particularly careful in drawing up the 1926-27 control figures.

Whereas previous plans had been drafted by Gosplan alone, the control figures for 1926-27 were drawn up with the participation of the relevant republican and departmental bodies. The method of balances became the primary method used in the drawing up of the new control

* Qualifying industry—that classed as large-scale industry by employing not less than 16 persons working with a mechanical engine, or 30 without.—Tr.

figures. This was a step in the right direction. But in addition to the balance method the authors of the control figures also attached certain importance to static and dynamic factors, and considered the plan both as a prognosis and a directive.

The control figures for 1926-27 covered a far more extensive programme, containing the targets that had been lacking, or almost lacking, in the former control figures, i.e., those for the production and utilisation of fuel, electrification, capital construction, national income, socialisation of the economy and the development of republics and economic regions.

Main Targets and Fulfilment of the Production and Financial Plan for 1925-26

	Unit	Plan	Fulfilment	
			absolute figures	per cent
Increase in gross output	per cent	49	43	88
Pig iron	thousand tons	2,490	2,334	94
Steel	"	3,000	2,942	98
Rolled stock	"	2,310	2,109	92
Coal	million tons	23.8	25.2	106
Oil	"	8.4	8.3	99
Sugar	thousand tons	868.4	1,036	120
Cotton cloth	million tons	2,057	1,995	98

In discussing the control figures for 1926-27 it was noted that they had certain merits over those for the preceding year, but contained a number of political defects. The control figures drawn up by Gosplan did not pay enough attention to Government directives for a marked increase in industrial and transport allocations, capital outlays and electrification, large-scale construction, decreased administrative expenditure, taxation of non-productive consumption, and additional taxation for private capitalists.

In the plan finally approved by the Council of Labour and Defence all targets were substantially increased. The increment in industrial output, originally set at 14 per cent, was raised to 20. The control figures envisaged 845 million rubles worth of capital investment in industry (excluding

electrification) and 947 million rubles in the plan as a whole.

In considering the errors and shortcomings of the early control figures, it should be remembered that the development of the socialist sector and the socialisation of the economy were still at a low level. "The experience of planned management proves," the resolution of the Fifteenth Party Congress read, "that plans ... were of necessity relative and conditional, that a realistic plan shapes organically as the economic organisation improves and as greater opportunities are created for accurate accounting and forecasting on the basis of the economy's growing socialisation. The relativity of plans and economic forecasts in general is dictated by dependence on an unpredictable harvest, the dependence on a market, which though checked by planning, has not yet been brought under complete control, dependence on a fluctuating world market and finally non-economic factors, connected principally with the hostile capitalist encirclement and affecting the economic relations both abroad and at home."

The larger the scope of reconstruction and the more complicated the international situation, the greater became the need for an efficient unified plan. The Party Central Committee gave increased attention to planning. The question of the draft control figures for 1927-28 was discussed at the Plenary Meeting of the Central Committee held in August 1927. The meeting adopted a decision on the 1927-28 economic directives which became the basis for the control figures Gosplan submitted to the Government in September 1927.

The control figures for 1927-28 were the first to contain targets for social and cultural development, a quarterly break-down of some production targets, calculations on the employment and reproduction of the labour force, including specialists. The plan was also broken down into regions. The control figures provided for the optimal combination of the growth of the productive forces, the socialisation and the people's welfare on the basis of industrialisation. In view of the aggravation of the international situation the control figures also provided for an increase in the country's defence potential. The targets were both

high and varied and demanded an all-out effort if they were to be fulfilled.

The 1927-28 control figures can be considered the beginning of the gradual process that transformed the estimates (control figures) into the unified economic plan. They were no longer merely a general economic guide and some control figures were made binding upon the relevant departments. The lack of co-ordination between Gosplan and the Supreme Economic Council had hopelessly delayed the drawing up and approval of the control figures and plans for individual industries. Gosplan noted that the control figures and the production and financial plan still remained competitive and that work on the plan was proceeding at a funeral pace.

The control figures for 1928-29 were also based on directives from the Party Central Committee. The Government abolished the separate scrutiny and approval of a number of special plans for 1928-29, including the production and financial plan for state industry.

There was a greater correlation between the state budget and the control figures.

An attempt was made in the control figures for 1929-30 to gradually extend direct planning methods to agriculture, thus accelerating the transition of the control figures into a national economic plan. As stated in the control figures, the attempt to introduce economic planning "to a huge mass of individual peasant households by making the plan include rural production tasks" was made possible by the scale attained by the system of forward contracts. But this system did not radically reorganise the peasant economy and real planning conditions emerged only with the organisation of collective farms. Besides, the prevailing food shortage could be alleviated only by forcing the countryside to conform to the plan, i.e., by increasing procurements through administrative measures.

The control figures for 1928-29 and 1929-30 were closely linked with the First Five-Year Plan and formed the basis for its sweeping programme. The percentage fulfilment of the 1926-27 and 1928-29 control figures over the preceding year is shown in the table on page 136.

The data shows that industry was coming ever closer to fulfilling its targets while agriculture was lagging far

	1926-27		1927-28		1928-29	
	plan	actual	plan	actual	plan	actual
Gross output of large-scale industry	120.6	118.2	122.5	122.5	121.4	123.4
Including:						
means of production . . .	124.9	123.4	122.0	122.4	125.6	126.2
consumer goods	117.3	116.0	123.0	122.9	118.6	121.0
Output per worker	112.8	113.0	117.3	114.5	117.0	115.1
Average monthly wages . .	109.9	112.1	107.2	110.5	107.3	109.7
Gross agricultural output . .	107.2	107.5	103.0	98.8	104.4	101.8
Marketable output	115.3	103.5	109.4	107.0	104.5	109.6
Freight transport	124.8	115.1	114.8	111.0	109.6	117.1

behind. This is explained by the fact that small-scale commodity production dominated agriculture up to 1929-30.

The transition to economic reconstruction, industrialisation, and socialist reorganisation of agriculture made a long-term plan an urgent necessity. The 1920 GOELRO plan had to be specified and supplemented so as to conform to the new conditions. As early as 1924, Krzhizhanovsky said that Gosplan should not be guided exclusively by the GOELRO plan since recently "we have gathered a lot of new material on the economic conditions, which must be more deeply reflected in the economic plan than the economic indices of pre-war statistics. In the light of these facts we must revise and complete the rough plan of research outlined in the GOELRO plan."

The revision of the GOELRO plan was discussed at the 1st Congress of planners held in March 1926, alongside the rough draft of Gosplan's first long-term plan for 1925-26 and 1929-30. At the 2nd Congress of planners the second such plan (for 1926-27—1930-31) was deliberated, while the third variant (for 1927-28—1931-32) was completed in autumn of 1927. In December 1927 the Fifteenth Party Congress approved the directives for the drafting of the First Five-Year Plan and in April 1929 the 5th Congress of Soviets and the 16th Party Conference approved the First Five-Year Plan for the development of the Soviet economy for 1928-29—1932-33.

The First Five-Year Plan brought the struggle between socialist and capitalist elements into sharp focus. The

	Project for the final year of the Five-Year Plan		Actual data	
	in absolute quantities	percentage increase over 5 years	absolute quantities	percentage increase over 5 years
<i>Gartvan's project for the iron and steel industry (1923-24—1927-28)</i>				
Output of rolled stock, million tons	1.14	248	3.37	733
Capital investments for 5 years in million rubles . .	171.2	—	410.0	—
<i>Kalinnikov's project for industry (1923-24—1927-28)</i>				
Gross industrial output in million pre-war rubles . .	3,260	282	6,189	418
Capital investments over 5 years in million rubles . .	443	—	4,304	—
<i>Neopikhanov's project for railway transport (1923-24—1927-28)</i>				
Railway freight turnover, million tons	87	150	150.6	260
Capital investments over 5 years, million rubles . .	402.6	—	1,069.2	—
<i>Kondratyev's project for agriculture (1924-1928)</i>				
Sown area, million hectares .	106	136	109.6	140
Cattle, million head	74.1	129	79.1	138
Capital investments over 5 years, million rubles . .	450	—	1,170	—
<i>Osvok's project for industry (1925-26—1929-30)</i>				
Gross industrial output, million pre-war rubles	6,698	272	9,480	315
Capital investments over 5 years, million rubles . .	6,148	—	8,258	—

irreconcilable class struggle centred around the five-year plan and long-term planning in general, and persisted until the enemies of socialism were dismissed from Gosplan.

The first rough drafts of quinquennial branch plans were made by disloyal specialists and were unacceptable. The summary below compares the drafts of different authors with the final achievements.*

The authors of these projects, Gartvan, Kalinnikov, Neopikhanov and other bourgeois specialists who at that time worked for Gosplan, were active enemies of socialist construction. Kondratyev was a former worker of the People's Commissariat for Agriculture and a functionary of the kulak party. Osvok (the special council for the restoration of fixed capital) was headed by Trotskyites and Mensheviks.

This influence naturally told on the content of the five-year projects. All the targets in these projects were minimised. In the agricultural field they provided for all-out assistance for the kulaks, and many planners relied on foreign capital as a source for financing the growth of production.

The five-year plan's programme for a decisive advance of socialism and rapid industrialisation, encountered bitter resistance from the enemies of socialism. In March 1927, the 2nd Congress of the Gosplan Presidium discussed one of the initial variants of the five-year plan providing for lower development rates than were later stipulated, but even this variant was rejected by the disloyal members. Groman declared that "the main problem of consolidating the economy as a whole has been incorrectly solved and should be radically revised". To strengthen the equilibrium, Groman declared, accumulations should be assigned to the countryside and not to socialist industry. If the projected growth in the welfare of the towns is 37 per cent and that of the countryside 30 per cent, 1.5 million people will move from the countryside to the towns and not 800,000 as expected—a surplus that will flood the towns. Bazarov, Kondratyev, Nikitsky and others unconditionally supported Groman.

* Compiled according to data in Strumilin's *Planning Problems in the U.S.S.R.*, 1932, pp. 68-99, Russ. ed.

It was later discovered that the struggle against the five-year plan had been specially organised. The relationship of the Mensheviks to the five-year plan projects was discussed at the Plenary Meeting of the Menshevik "Allied Bureau". It was decided to put up a fight to retard the plan at the preliminary discussions, to emphasise the difficulties, to resort, if necessary, to biased data and to "doctor" data whenever necessary.

In 1925-26 when work on the five-year plan had been intensified, the Trotskyites, supported by the reactionaries, advanced the so-called theory of the "diminishing curve" in an attempt to jeopardise socialist industrialisation. Below is a comparison of the yearly increments projected by Osvok and the actual increase in industrial output.

	Investments in state industry according to Osvok plan in million rubles (1926-27 prices)	Actual investments (1926-27 prices)	Increase in industrial output according to Osvok plan (per cent)	Actual increase (per cent)
1926-27	1,543	1,065	31.6	19.7
1927-28	1,490	1,304	22.9	26.3
1928-29	1,320	1,819	15.5	24.3
1929-30	1,060	4,775	15.0	32.0

During the first year, when no conditions for rapid industrial development existed, the Trotskyites demanded that growth rates be excessively accelerated and prattled about super-industrialisation. In later years, when the conditions for a rapid advance had been created, they changed their tactics and called for a slow-down of the advance.

On the whole theirs was a "minimal", essentially defeatist programme and the Party rejected it.

When the directives for the drafting of the five-year plan were discussed at the Fifteenth Party Congress, Sokolnikov suggested that two- or three-year plans be drawn up for capital construction. His real intention was to push the five-year plan to the background and jeopardise the fulfilment of its principal tasks.

Right-wing opportunists also objected to the rapid growth of industrialisation projected in the five-year plan. To

substantiate their assertion that high growth rates for industry were impossible, they invented the theory of orientation on "bottlenecks". Bukharin considered building materials one of the "bottlenecks". Opposing the Party's proposal to develop the production of building materials in pace with the requirements of the industrialisation programme, Bukharin and his supporters demanded that industrial construction be curtailed. Instead of the five-year plan drafted in accordance with Party instructions, Rykov proposed a two-year plan emphasising kulak agriculture rather than industry. All anti-Party forces united in the struggle against the five-year plan, declaring even the most modest variants utopian and reckless.

The Communist Party and its Central Committee struggled hard to overcome the influence exerted by the bourgeois and other hostile elements on planning and fought to ensure a rapid industrialisation and socialist reconstruction of the economy.

A comparison of the different variants of Gosplan's five-year plan shows how targets were constantly and substantially increased (see table on page 141).

The targets in the initial projects were much lower than those in the approved (optimal) variant of the five-year plan. The comparatively high production growth rates in the first long-term draft for 1925-26—1929-30 are not due to high targets, but are a result of the low levels in the period 1924-25, when the economy had not yet attained the pre-war level.

The targets for the five-year plan were raised as the hostile bourgeois influence was overthrown and the Party assumed control over economic planning. On the directions of the Party Central Committee, Gosplan raised the targets for industrial construction from project to project. In the final version the targets for industrial output were 65-70 per cent and for capital investment in industry 200 per cent higher than the initial targets.

Events proved that the Party line on national industrialisation, and the reconstruction of the economy had in fact been the correct one.

The five-year plan finally adopted contained a sweeping programme for the reorganisation of agriculture and for the first time in history the state took up active direction

Comparison of Initial Versions of the First Five-Year Plan with the Approved Version

	Gross output in the last year of the five-year plan period as a percentage of the output of the year preceding the plan		Capital investments during the five-year plan period (000 million rubles)	
	industry planned by the Supreme Economic Council	agriculture	state sector of the economy	industry planned by the Supreme Economic Council
Approximation:				
1925-26—1929-30	271	156	13.6	5.5
1926-27—1930-31	180	124	15.9	7.0
1927-28—1931-32:				
a) initial version	177	124	22.3	8.9
b) optimal version	209	131	26.6	10.2
Five-Year Plan for 1928-29—1932-33:				
a) initial version	235	143	32.1*	16.9*
b) optimal version	279	155	37.4*	18.4*

* In prices allowing for the decrease in construction costs.

of the socialisation process and the planned development of production relations. The five-year plan wrought so many important changes that it marked an economic revolution. The First Five-Year Plan solved the basic problems of the transition period. Its main task was to transform the backward, agrarian country into an economically independent industrial power. It had also to transform small-scale, scattered agriculture into large collectivised agricultural production, to expand the front of socialism and prohibit the restoration of capitalism in the U.S.S.R.; to supply the economy with new plant and machinery and finally to raise the defence potential of the country. The disproportions between industry and agriculture, the economy as a whole and the iron and steel industry had to be eliminated, the rapid development of up-to-date equipment, the organisation of the building industry, and the training of technical and scientific personnel, provided for.

The First Five-Year Plan was a continuation and development of the GOELRO plan. The GOELRO plan had worked only on the sections dealing with the construction

of power plants and industry, and associated problems of labour and finance, whereas the five-year plan embraced agriculture, trade, education, public health, housing construction, general economic plans for labour and a financial plan, in addition to the above sections. The key section of the First Five-Year Plan—its industrial programme—was the most concrete of all. Under the GOELRO plan only about 15 industries had been given production tasks; in the First Five-Year Plan their number rose to 50. Industrial targets, such as those for iron and steel, were worked out in great detail, covering individual factories, yet at the same time giving due attention to the problems of industry as a whole.

In a way the five-year plan was a direct descendant of the GOELRO plan. Whereas in the GOELRO plan pig iron production was to be increased to 8.2 million tons, the five-year plan provided for 8-10 million tons. The GOELRO plan envisaged an increase in peat production from 8.2 to 16.4 million tons and the five-year plan had a planned output of 12.3 million tons. The GOELRO plan was especially closely linked with the five-year plan in respect to the development of the power industry. Krzhizhanovsky noted that the GOELRO plan had proved so realistic that it's quinquennial targets for electrification had been approved by the U.S.S.R. Council of People's Commissars even before the general data underlying the whole five-year plan had been submitted.

The principal feature of the First Five-Year Plan was a relatively high industrial development rate. The average yearly increment in industrial output envisaged for the quinquennium was 18.7 per cent. The planned and actual yearly increments actually exceeded these targets.

The figures on page 143 show that the Party had to marshal all resources to create a sound basis for socialism, develop heavy industry and strengthen the defensive might and economic independence of the U.S.S.R.

Some modern economists may argue that the economic growth rates in the 1928-32 plans were unrealistic, even that the plans themselves were unrealistic and contained many shortcomings. As far as defects in the plans are concerned they would be right and nobody would deny it. One of the most substantial defects was that Gosplan

Yearly Increments in Industrial Output
for 1928-29—1932

	Increment of output as a percentage over the preceding year	
	plan	actual fulfilment
1928-29	21.4	23.7
1929-30	32.1	25
1931	45	20
1932	36	15

sometimes drafted plans without basing them on available material and equipment, relying on enterprises' internal resources. In the 1931 plan, for instance, the deficit in rolled stock was about 500,000 tons, or 6-7 per cent of the total requirement. "Are we justified in allowing such a deficit?" asked Kuibyshev,* Chairman of the Gosplan. "Yes, we are. Obviously, not all reserves and not all potentialities have been taken into account, neither have all measures been taken to economise metal."

The planning of high rates in the First Five-Year Plan period was an objective necessity. Even though fulfilment fell short of the plan targets, the plans helped consolidate funds for industrial development and thus served a useful purpose.

The First Five-Year Plan laid the foundation of a socialist economy in the U.S.S.R., and eliminated the capitalist classes. The Soviet Union was no longer an agrarian country, it had become an industrial power. Many important industries had been built up almost from scratch, among them the iron and steel, machine-tool, motor, tractor, chemical, aircraft and farm machine industries. Collective farms and state farms now dominated agriculture and socialist agricultural enterprises were equipped throughout with new machinery. Poverty in the countryside and unemployment in the towns had been abolished and the material and cultural standards of the working class had

* Valerian Kuibyshev (1885-1935) was an outstanding Party and Government functionary, Chairman of the U.S.S.R. Gosplan and First Deputy Chairman of the Council of People's Commissars and the U.S.S.R. Council for Labour and Defence.

been raised. The five-year plan had transformed the U.S.S.R. into an economically independent country and had greatly increased its defensive might.

The building programme bulked large in the sphere of material production during the period of the First Five-Year Plan. Capital investments in the socialised sector had overfulfilled the plan by 12 per cent and in heavy industry by 45 per cent. The plan for gross industrial output was fulfilled by 96.4 per cent, for group A by 110, engineering—165, and for the oil industry—107.5 per cent.

Fulfilment of the Main Political and Economic Targets of the First Five-Year Plan

	Base year	Plan	Actual (4½ years)
<i>Socialist industrialisation</i>			
Increase in industrial output for 5 years (last year of the Five-Year Plan as compared to base year in per cent) .	—	230	224
Share of heavy industry	44.4	47.5	54.1
Share of qualifying industry in gross output of industry and agriculture .	46	58.5	70.7
<i>Socialisation</i>			
Share of socialist sector in:			
industrial output	79.5	92.4	99.5
agricultural output	1.8	14.7	76.1
capital investments (for 5 years) . . .	56.7	73.1	87.5
retail trade	75	91.0	100
national income	44.0	66.3	93.0
percentage of collectivised peasant households	1.7	20.0	61.5
Share of state and collective farms in production of marketable grain . . .	7.5	42.6	84.0
<i>Economic independence</i>			
Share in supplies:			
domestic plant	67.5	—	over 90
domestic machine-tools	33	—	46
Extent to which home consumption was covered by domestic sources:			
tractors	24.6	—	100
cotton	66.8	—	98.4
<i>Employment of population</i>			
Number of unemployed in towns (in thousands)	1.133	511	—
Agrarian overpopulation (in millions) .	8.5	2.6	—

The most important social and economic changes resulting from the fulfilment of the First Five-Year Plan are given in the table on page 144.

The figures in the table prove that the main tasks of the transition period had been solved, and that a foundation for the socialist economy had been laid.

In agriculture the fulfilment of the plan brought a revolutionary reorganisation of peasant farming and in general it indicated the enormous role played by the dictatorship of the proletariat in socialist construction. The sweeping social reforms, their preparation and implementation were nearly all carried out according to plan.

The socialist reorganisation in town and countryside took place amidst violent class struggle—a situation that affected the economic development. The class struggle was responsible for the non-fulfilment of a number of targets both in the agricultural plan and the associated industries.

Percentage Fulfilment of Some Agricultural and Light Industry Targets in the First Five-Year Plan

	Unit	1927-28	Plan for 1932-33	Actual (1932)	Per cent fulfilled
Sown area	million hectares	115.6	142	134.4	95
Production of:					
grain	million centners	731	1,058	698.7	66
cotton	"	7.2	19.1	12.7	67
sugar beet	"	101	195.5	65.6	34
Animal population:					
horses	million head	30.8	36.9	17.3	47
cattle	"	66.4	80.9	33.5	41
pigs	"	22.6	34.8	9.9	28
sheep and goats	"	132.1	160.9	37.3	23
Cotton cloth	million metres	2,742	4,700	2,720	59
Woollen cloth	million metres	97	270	91.3	34
Granulated sugar	thousand tons	1,340	2,600	828.2	32

The figures in the table on page 145 show that the reorganisation of agriculture effected not only the fulfilment of the plan for agricultural development but also that of a number of light industries. The non-fulfilment of these plans became responsible for serious economic problems, making it extremely difficult to supply the population and necessitating a system of rationing.

We must not underestimate the enormous success in agricultural development achieved by the Soviet state and the Communist Party by means of the First Five-Year Plan. The emergence of large-scale socialist production in agriculture created the necessary conditions to eliminate the disproportions between industry and agriculture and for the complete victory of socialism in the Soviet Union.

The First Five-Year Plan and the yearly economic development plans shaped the planning system that is functioning to this day. Long-term plans and targets concretising them (yearly plans) form the basis of the planning system.

CHAPTER III

DEVELOPMENT OF PLANNING IN CONNECTION WITH THE GROWTH OF SOCIALISATION

(Planning under Socialism)

At the end of the Second Five-Year Plan period all basic means of production had become socialised property, the exploiting classes were eliminated, and the collectivisation of peasant households was completed. This meant that the transition period had been completed and that socialism had been established. But even during the First and Second Five-Year Plan periods important changes were made in planning in conformity with progress made in the achievement of the tasks set by the two plans.

Changes in Planning in Connection with the Victory of Socialism. Second and Third Five-Year Plans

With the advent of socialism and the further development of socialist production relations, the law of planned balanced development can operate to its full extent. Socialist society creates new conditions for planned economy and planning.

The most important condition is that all basic means of production in industry and agriculture are public property. Proportional development becomes a characteristic of social production. Planned, balanced development of the socialist economy is no longer hindered by blind capitalist processes, and the implementation of socialist plans is not impeded by capitalist elements. The socialist economy develops peacefully and is no longer affected by the instability and fluctuation of small-scale commodity production.

Friendly co-operation and mutual assistance among workers who are no longer subjected to exploitation give birth to mass emulation, which is a method of comradely collaboration in production. Thus socialist emulation becomes a form by which the people both in town and countryside can participate in planning.

The victory of socialism unites society morally and politically, extends and strengthens the social basis of the Soviet state and augments its economic and organisational role. State planning activities are extended by the increasing number of people drawn into its activities; conscious discipline and a desire to fulfil economic plans replace capitalist coercion.

Socialism created planning conditions for all economic branches. It eliminated capitalist elements in industry by means of co-operation and reorganised artisan (small-scale commodity) production. Socialist industrialisation created the highly socialised large-scale machine production which is vital for a stable and planned economy. The socialisation and concentration of industry went hand in hand. During the years of socialist construction the concentration of industrial production has assumed an unprecedented scale. Before the Revolution the average yearly production of pig iron per factory was 48,000 tons, in 1940 it was 392,000 tons. Before the Revolution, power stations had a low output and supplied comparatively few consumers. In 1940 the average capacity of power stations had been greatly increased, and the bulk of large stations had been united into central power grids with a power production factor of 81.2.

The formation of collective farms and the development of state farms provided industry with a stable and steadily expanding raw material basis. Thus plans for the development of food and light industries were supplemented by plans for the development of agricultural raw materials.

The replacement of small peasant and kulak farmsteads by collective farms radically changed agricultural planning conditions. The very nature of large-scale production makes it necessary for collective farms to conform to plan. To fully utilise the achievements of agricultural science in crop and animal farming, collective farms must learn to specialise, must introduce crop rotation and cross-breed

new stock for better strains. Only long-term stability in agricultural development can ensure that.

Mass production of farm machinery and effective utilisation of complex machines is possible only if the activities of collective farms, as regards their scale and specialisation, are predetermined for years in advance. Similarly, stable links with other enterprises, notably with industry, and a guaranteed sale of output (without which there can be no crisis-free production) can be ensured only by a predetermined volume of industrial and agricultural output. There can be no organisation of labour, no specialisation, no planned increase in incomes as a stimulus for the growth of the productivity of labour, unless the collective-farm economy as a whole is rationally organised.

However one looks at it, large-scale agricultural production must be based on public ownership and developed in a planned way. It is in the interests of all collective farmers that their incomes should grow steadily, and this can be achieved only through co-ordinated development of all agricultural branches and the growth and improvement of production. Public ownership of the basic means of production promotes a comradely co-operation, excludes exploitation and creates objective conditions for planned collective labour.

The organisation of collective farms brought fresh opportunities for the socialist state to plan agricultural production. While small-scale farming was dominant, the regulating role of the state was, of necessity, concentrated on exchange (buying and selling) rather than on production. Although the regulation of agriculture by exchange did influence its development, it was only within the comparatively narrow limits set by the social nature of small-scale farming. At best the state could induce peasant farmers to produce more industrial crops and marketable grain, but the very nature of small-scale farming precluded extended production and made it almost impossible to raise agricultural production to the required level.

After the establishment of socialism in the countryside, the state could extend planned regulation from the sphere of exchange to agricultural production. By planning large-scale agricultural production the state determines not only the direction but also the general volume of output and can

deal, at the same time, with any associated problems. The state and collective farms together can now make a thorough study of the resources and reserves of agricultural production (a thing that was impossible before the organisation of collective farms). Agriculture is then supplied, according to plan with machines, fertilisers, high-quality seed, pure-bred cattle, and building materials; important measures are financed; and production organisers, agronomists, veterinary surgeons and machine operators are allotted to the various farms. Collective-farm production can be developed, according to plan, on the basis of firm contracts with the farms.

Socialism triumphed in agriculture not only due to the establishment of collective farms but also due to the organisation of state enterprises in the countryside. These large socialist enterprises consisted of machine and tractor stations and state farms which influenced the development of collective farms in the interests of strengthening socialism and the economy as a whole.

The establishment of collective and state farms extended the operation of socialist laws to the realm of agriculture. The mass collectivisation made it possible to extend the sphere of planned management to agriculture. The Sixteenth Party Congress noted that collectivisation "strengthened the role of the proletarian state as a regulator of the economy. Planned management was now important on a national scale." But success did not come overnight. It became possible only after the reorganisation of agriculture and an improvement in the economic organisation of the collective farms.

Let us first look at how *planning of collective-farm production* developed. State sowing plans were introduced in the spring of 1930. The first state sowing plan contained concrete instructions for the preparation of the sowing campaign (the laying-in of seeds, cleaning of seed, repair of machinery, land improvement measures) and also the planned targets which were handed to every region and every collective farm. The plan also provided for the manoeuvring of material resources between and within regions.

The sowing plans of the collective-farm period differed fundamentally from those of the Civil War period in that

they were based on the vital necessities of the collective farms and wide sections of collective farmers participated in drafting them. Sowing plans during the Civil War period were an attempt to influence small-scale commodity production directly and were allied to the surplus requisitioning which paralysed the productive activity of the peasants. The first sowing plan assigned to the collective farms was a great success.

From 1935 on, state plans for the development of livestock breeding were drawn up in addition to the sowing plans. The agricultural reorganisation had a particular bearing on livestock breeding. The Plenary Meeting of the Party Central Committee held in June 1934 proposed to introduce, "in imitation of the state sowing plan, a method of state planning for the development of livestock breeding, with stipulated growth targets for state farm herds and livestock breeding departments of collective farms; plans for rearing young animals by state farms, collective farms, collective farmers and individual farmers; a plan for fodder production, and to hand these plans down to state farms, collective farms and village Soviets".

The Government approved and handed down to republics, regions and territories (collective farms and state farms) plans containing targets for the increase in the animal herd, the rearing of young stock, the development of livestock breeding departments in collective farms, the purchase of animals from collective farmers (outright and according to contract), the sale of stock by collective farmers, measures for improving the herd, its maintenance, and the expansion of fodder production. The state plan for the development of livestock breeding was a component part of the consolidated national economic plan.

The next step in planning agricultural production was the drawing up of consolidated agricultural development plans. From 1938 on, agricultural plans united the plans for spring and autumn sowing and also the plan for agricultural measures. An ordinance of the U.S.S.R. Council of People's Commissars of January 27, 1938 approved the measures connected with the sowing of spring and autumn crops, the raising of clean fallows, fall ploughing, the planting and maintenance of seed plant and the utilisation of local fertilisers. Specific targets were set for republics,

territories and regions giving particulars of the crops to be sown.

The 1939 plan for agricultural work included targets for surface ploughing, bare fallow ploughing, summer planting of potatoes, the vernalisation of grain crops, the supply of mineral fertilisers, etc. The 1940 plan also set targets for field and tractor work and for the development of livestock breeding. As distinct from plans for former years, the 1940 plan did not contain separate crop targets. Collective farms were handed down a summary plan for all crops, a division was made only between spring and autumn crops. This was done to boost the initiative of the collective farms and farmers.

The organisation of production and labour within the collective farms and the distribution of incomes was largely based on the Model Rules for Agricultural Artels.

During the early days of the socialist reorganisation of agriculture, and later when it was consolidated and strengthened, there was a marked increase in centralised state management of collective-farm production.

Socialism eliminated rural unemployment and overpopulation and paved the way for the planning of labour. The conditions for the planning of trade, finance, credit and money circulation had also changed.

The state budget now relied for revenue almost completely on the accumulations of socialist economy. In 1925-26 the socialist sector accounted for 53 per cent of the budget revenue, in 1928-29 for 62 per cent and just before the Great Patriotic War (1941-45) for 90 per cent. This strengthened the links between budget planning and economic planning and made economic levers more effective in ensuring the fulfilment of budgetary revenue. The 1930 tax reform further improved budget planning, whilst the improved financial position of the economic branches brought substantial changes in fiscal planning.

The victory of socialism and the consolidation of planning, both for separate economic branches and for the economy as a whole, made it possible to carry out the credit reform in 1930-32 which in turn introduced planned crediting and the money circulation. The concentration of all short-term credit resources in the State Bank and the development of economic and financial planning facilitated

the exact accounting of credit resources. This and the abolition of commercial credit helped to achieve an economically sound distribution of credit between the various economic branches. Realistic credit and trade plans became a sound basis for the emission plan. The credit reform made the State Bank the only credit, accounting and money-issuing centre in the country, and the only state apparatus for ruble (financial) control over the economic activities of enterprises. Credit plans became an important component of the socialist economic plan. The abolition of private trade, the growth of state and co-operative trade and the organisation of collective farms facilitated the drafting of a balance-sheet of the people's income and expenditure, of State Bank cash plans, and the regulation of the money circulation.

Since all financial plans had to be strictly co-ordinated with the economic plan, a general economic financial plan had to be drafted for the whole economy. A universal form of socialist economy at last created conditions for the drawing up of a single synoptic financial balance embracing the whole economy. This first draft was drawn up for 1929-30.

However, a single financial plan was no substitute for the operative financial plans; it combined the state and local budgets, special departmental funds, a plan of the credit system, a summary of social security budgets, state insurance plans and savings bank plans, self-taxation plans, trade unions funds for social and cultural measures, and the accumulations of various economic bodies. The consolidated financial plan was not an operative document and was not submitted to the Government for approval. It became important as a financial balance which summarised the formation and utilisation of all state resources. This plan was of particular importance in drafting long-term plans.

The growth in the socialisation of labour and production, the elimination of capitalist elements and the reorganisation of small-scale commodity production favoured the extension of planned management to the whole economy. This changed both the content and the form of state plans. Planning and regulation of a mixed economy was replaced

by the planning of a socialist economy; recommendations and suggestions became directives.

In 1929-30 control figures were drawn up for the last time and, from 1931 onwards they were replaced by state economic plans. In other words, the gradual transformation of the control figures (estimates) into binding state plans which had begun in 1927-28, terminated in 1931.

The economic plan for 1931 was the first attempt at a planned management of the whole economy.

An ordinance passed by the 6th Congress of Soviets (March 1931) noted: "The growth of the socialist sector in industry and trade (brought about by the industrialisation of the country and the setting up of collective farms and state farms) paved the way for a higher level of planning, in other words, a single national economic plan and a single financial plan." It took time before planned tasks and targets corresponded reasonably accurately with economic potentialities. The reorganisation of agriculture had to be completed before this could be achieved.

The table below shows that the reorganisation of agriculture had a positive effect not only on the planning of agricultural production and the fulfilment of agricultural plans but also on the fulfilment of industrial plans.

Fulfilment of Industrial Plans for 1928-29—1937

	Fulfilment in per cent
1928-29	101.7
1929-30	94.6
1931	83.4
1932	84.5
1933	90.0
1934	99.8
1935	104.9
1936	105.0
1937	95.5

It is noticeable that from 1934 onwards industrial plans were far better fulfilled than in former years.

The radical changes resulting from the victory of socialism determined the content and methodology of the *Second*

Five-Year Plan. The fulfilment of the First Five-Year Plan made it possible to advance even greater tasks in the Second. The First Five-Year Plan had laid the foundation of the socialist economy; now it was time to raise the edifice of socialism on that foundation. The principal economic tasks of the Second Five-Year Plan were to eliminate the exploiters, to complete the technical reconstruction of the economy, and to double or treble popular consumption.

"The socialist victory," Kuibyshev observed, "has considerably extended the sphere of planning. The Second Five-Year Plan shows that our planning system has advanced so much that literally not a single section of our economic, cultural and scientific research work is left out of the plan."

The First Five-Year Plan embraced principally that part of industry which was subordinated to the former Supreme Economic Council and accounted for only 60 per cent of gross industrial output. The Second Five-Year Plan embraced all industry. The First Five-Year Plan set targets for about 50 branches of industry, the Second for about 120 branches. The First gave physical indices for five branches of engineering, the Second for 36. The Second Five-Year Plan outlined concrete tasks for 15 branches of the food industry, as compared to six in the First.

The agricultural programme of the First Five-Year Plan was largely conditional, since it relied mainly on individual peasant households and was confined to economic regulation. The agricultural programme of the Second Five-Year Plan relied on the socialist sector and contained far more detailed targets.

Capital construction, too, was covered more fully in the plan. The planning bodies paid greater attention to technology. The plan provided for the completion of the technical re-equipment of the economy, and aimed at making the Soviet Union the leading technical equipment manufacturer in Europe. It provided for a system of measures for the mastery of new equipment, and contained a special section of technical and production indices (norms for the consumption of raw materials and fuel, factors for the degree to which equipment was to be utilised, etc.).

The Second Five-Year Plan made extensive use of the system of material and financial balances based on

thoroughly checked norms. As distinct from the First Five-Year Plan, the Second established targets for the expansion of the network of research institutes, for the training of scientific personnel and laid down research trends.

Plans for the economic branches in the Second Five-Year period were discussed in detail at the frequent scientific and technical conferences held by Gosplan on the auspices of the Government. The Academy of Sciences, 200 research institutes, and over 300 eminent specialists in scientific and technological fields participated in drafting the Second Five-Year Plan.

The plan provided for an investment of 133,000 million rubles as compared with the 60,000 million rubles projected by the First. These investments were earmarked for reconstruction of all branches of the economy, particularly the construction of up-to-date heavy industry and the development of light industry and agriculture. By the end of the Second Five-Year Plan (1937) industrial output was to exceed the pre-revolutionary level by 700 per cent, an increase in industrial and agricultural output that would make the Soviet Union a leader in industrial production and considerably increase the consumption of the working people.

It should be noted that under the Second Five-Year Plan the growth rates were much lower than under the First. Since all branches of the economy had been re-equipped under the First Five-Year Plan and the defence potential of the country had been raised, there was now no need to drive the country so hard nor to continue accelerating industrial development to the utmost. Besides, starting up factories erected under the First Plan took time and slowed down the development in the years immediately following their erection. Instead of the annual increase of 21-22 per cent achieved under the First Five-Year Plan, the Second envisaged a growth rate of 16.5 per cent. This was also reflected in the yearly plans (see table on page 157).

There was also a considerable difference between the Second and the First Five-Year plans in their rate of agricultural development, accumulation and the training of personnel. The reorganisation of agriculture was carried out principally under the First Plan and although temporarily preventing the acceleration of growth rates, paved

Annual Growth Rate of Industrial Output
Between 1933 and 1937

	Percentage increase as compared with the preceding year	
	plan	actual fulfilment
1933	16.5	5
1934	19	19
1935	16	23
1936	23	29
1937	20	11

the way for the planning of high growth rates under the Second Five-Year Plan. In actual fact, there were years when no definite plans for agricultural production could be drawn up. Soon the state was able to give more financial and material assistance to collective farms.

Under the First Plan the bulk of the resources were directed to the rapid development of heavy industry. This meant that a very large slice of the national income went to accumulation, the growth of public consumption had to be limited. Under the Second Plan, however, the lower growth rate projected for the development of heavy industry, released large funds for consumer goods industries and enabled a higher rate to be set for consumption than for accumulation. Unfortunately the worsening of international affairs prevented these plans from being effected and heavy industry continued to grow at a more rapid rate than light industry.

The Second Five-Year Plan eliminated the exploiting classes, completed the collectivisation of peasant households and established a firm basis for socialism. The 1937 gross output of industry exceeded the 1932 level by 120 per cent, railway transport targets had been overfulfilled and the targets for the development of industry had been fulfilled by 103 per cent. In 1937 the harvest of industrial and grain crops was greater than ever and the total agricultural output exceeded the 1932 level by 25 per cent.

At the end of the Second Five-Year Plan the Soviet Union had completed the technical reconstruction of the economy and had doubled the fixed assets of the economy. Over 80 per cent of the total industrial output in 1937

comprised new enterprises built or fully reconstructed under the First and Second Five-Year plans. The Second Plan raised the living and cultural standard of the population considerably and increased the national income by 110 per cent.

The figures for the fulfilment of the Second Five-Year Plan show that economic development became more proportionate and that planned tasks were more in keeping with socialist economic laws. The table below compares the fulfilment of the First and Second plans according to some of the main indices.

	Fulfilment in per cent	
	First Five-Year Plan	Second Five-Year Plan
Capital investments in socialised economy	111.9	103
Gross industrial output	96.4	103
Including:		
heavy industry (Group A)	109.8	121
light industry (Group B)	84.9	85
Production of cotton cloth	59	68
Production of sugar	32	97
Grain harvest	66	115
Cotton harvest	67	122

The above data show the extent to which the reorganisation of agriculture (carried out during the First Five-Year Plan) interfered with the fulfilment of the targets set for agriculture and associated light industries. Under the Second Five-Year Plan the reorganisation was far less, the economy became unisectoral—socialist, and this had an immediate effect on the fulfilment of the plan.

By the end of the Second Five-Year Plan period the economy had been largely reorganised along socialist lines, the socialist reconstruction of agriculture had been nearly completed and collective farms had gained a sounder economic basis. An immediate effect was felt on the dynamics of agricultural production. If we take the overall figures for the Second Five-Year Plan, not only those for the last year covered by the plan, we see that the level of agricultural

output in the key branches was still too low and did not satisfy the growing requirements of the economy. Nor was its increase over the First Five-Year Plan period very substantial. The average yearly harvest of grain, flax and sunflowers even dropped a little below the average for the First Five-Year Plan period and the average yearly potato harvest rose by only eight per cent. Livestock breeding also lagged behind; even though the output of this branch had increased by 45 per cent from 1933 to 1937, it was still only two-thirds of the average yearly level from 1926 to 1929. The only steep increase during the Second Five-Year Plan period was in the harvest of industrial crops such as sugar beet and linen. The sugar beet average rose by 49 per cent and procurements and purchases of cotton on the open market (average yearly level) increased by 79 per cent over those in the First Five-Year Plan period.

One of the principal features of the Second Five-Year Plan was that it solved a number of important questions connected with cultural development. The building of socialism was inconceivable without a cultural revolution, and the growing socialist system was creating the necessary conditions. The Party attached particular importance to the training of specialists since without them the mastery of new techniques was delayed and the technical reconstruction of the economy slowed down.

The First and Second Five-Year plans contained a wide programme for the training of specialists and the development of public education in general. A special feature of the training of skilled workers was that they were trained while their future factories were still under construction. This made training more expensive but saved a lot of time.

The First Five-Year Plan laid down universal primary education as a basis for the massive training of skilled personnel, and for a substantial increase in the number of engineers, agronomists and other specialists graduating from higher and special secondary educational establishments. The Second Five-Year Plan further developed the cultural revolution, provided for universal polytechnical education (seven years) and for a further expansion of the training of specialists. During the two Five-Year Plan

periods the total number of people studying in primary, secondary and other educational establishments increased as follows:

Number of People Studying in

	General educational schools (millions)	Institutes (thousands)	Technical schools (thousands)
1914-15	9.7	127.4	54.3
1928-29	12.2	176.6	206.3
1932-33	21.4	504.4	723.7
1937-38	30.1	547.2	862.5

Universal education, the training of Soviet intelligentsia and the advance of culture in all national republics eliminated the "manpower gap" resulting from the rapid technical reconstruction of the economy and the shortage of skilled labour.

The building of socialism had by that time been nearly completed; the Soviet Union was ready to begin the gradual transition from socialism to communism. The 18th Congress of the C.P.S.U. outlined a programme for the building of communism, an integral part of which was the overtaking and outstripping of the principal capitalist countries in per capita production.

The *Third Five-Year Plan* continued the immediate tasks of communist construction. It envisaged a considerable increase in per capita output, in the technical level of the economy and in labour productivity, also providing for an improvement in economic proportions. The plan outlined further measures to strengthen socialist forms in the economy, to lessen the disparity between town and country and between physical and mental labour. The deterioration of the international situation also made it necessary to set aside large sums for defence.

The *Third Five-Year Plan* continued the work of the earlier plans on the industrialisation of the country. It provided for the priority development of heavy industry, notably of engineering, power engineering, the iron and steel, and the chemical industries. The plan envisaged an overall increase in industrial output by 92 per cent, of heavy industry by 107 per cent, of engineering by 129 per

cent, of power production by 106 per cent, of rolled stock by 100 per cent and of chemicals by 137 per cent. The *Third Five-Year Plan* became known as the five-year plan for chemistry and special steels.

The plan also envisaged a 52 per cent increase in agricultural output, a further advance in livestock breeding, a 50 per cent increase in popular consumption and a number of measures to raise the cultural and technical level of workers and collective farmers. This task was supported by the introduction of universal secondary education in towns and the expansion of the secondary school network to the countryside. 192,000 million rubles (1.7 times more than under the *Second Five-Year Plan*) were earmarked for capital construction between 1938 and 1942. The *Third Five-Year Plan* also visualised the development of all economic regions and national republics, and progressive changes in the location of the productive forces.

The plan was based on the complete triumph of the socialist economic system and was therefore able to set enormous social and economic tasks; it embodied the law of planned, balanced development and embraced all aspects of socialist reproduction. The problem of the planned utilisation of labour resources, based on nation-wide socialisation and co-operation, was worked out in greater detail than in preceding plans. In the *Second Five-Year Plan* the balance-sheets for labour had covered only the requirements of state enterprises, the social, cultural and administrative spheres and had stipulated the extent of organised labour recruitment in the countryside. The *Third Five-Year Plan* also included balances for the labour resources of collective farms for 1937 and 1942.

The *Second Five-Year Plan* had achieved a certain success in establishing an optimal correlation between the development of key industries and agriculture, accumulation and consumption. The *Third Five-Year Plan* consolidated these successes, set out to eliminate the remaining partial disproportions, and provided for the creation of large economic reserves to guarantee the steady fulfilment of the plan and to prevent the emergence of new disproportions. The balance for the national income provided for an increase in reserves from 2.9 to 6.3 per cent and for the construction of spare capacity in power systems

(amounting to 10-15 per cent of total capacity), to lay in reserve fuel and raw materials.

The table below shows how the targets of the Third Five-Year Plan were fulfilled in the three and a half years that the plan operated.

	Per cent
Gross industrial output	86
Including:	
group A	90
group B	80
Gross grain production (1940)	91
Railway freight turnover	90
Retail trade	92
Number of factory and office workers	98
Wage fund	96

The threat of war influenced planned assignments and the implementation of the plan. In the draft of the Third Five-Year Plan drawn up early in 1939, Gosplan pointed out that the plan would be implemented at a time when fascist aggression had to all intents and purposes already provoked the second imperialist war.

The rapidly worsening international conditions and the ever present threat of war forced the Soviet Union to accelerate the development of the defence industry. The overall yearly growth of all industry between 1938 and 1940 was set at 13 per cent while that of the defence industry at 39 per cent. The decrease between 1938 and 1940 in the production of machines demanding large amounts of metal—cars, tractors, etc.—was connected with the rapid increase in the defence industry.

A major defect in the implementation of the Third Five-Year Plan was that due to bad management, the iron and steel and chemical industries lagged behind schedule. In 1940 steel and pig iron production was only three per cent above the 1937 level, while the production of mineral fertilisers remained at its former level and the increase in coal production was, at first, entirely insufficient. The lagging behind of a number of industries proves that there still was haphazard development. It proved that proportionality and balance in the economy cannot be achieved automatically, but only as a result of communal activity and enormous organisational efforts by the Party and the state.

Urgent measures soon erased the shortcomings in the implementation of the Third Five-Year Plan. By the eve of the Great Patriotic War the Soviet Union had built up a reliable coal and metal basis. The implementation of the Third Five-Year Plan was interrupted when nazi Germany treacherously attacked the Soviet Union.

Planning During the Great Patriotic War

The invasion of the Soviet Union by heavily armed German armies was a real test for the socialist social and economic system. They proved worthy of the task. The planned management of the Soviet economy was a no less decisive advantage during the war than in peace time. Whereas before the war Soviet planning had been an important means of strengthening the country's defence potential, during the war it became a means of organising the war economy.

Three important features determined the organisation of Soviet war economy: 1) the level of development of the productive forces, 2) the nature of the production relations, and 3) the state system.

There is a direct connection between the level of development of the productive forces and the military might of a country. A country with highly developed productive forces and a progressive economic structure (which includes a large share of heavy industry and a versatile economy) has a high war potential.

The organisation of war-time economy is determined by the type of existing production relations. Production relations based on the private ownership of the means of production impede the rational organisation of war-time economy. On the contrary, socialist production relations and socialist ownership of the means of production were the decisive prerequisites for the efficient organisation of the Soviet Union's rapidly growing war-time economy.

The prevailing state system has a direct influence on the organisation of the war-time economy. In organising the war economy, capitalist and socialist states have different potentialities and play different roles in war-time economic construction.

Frederick Engels studied the dependence of the development of the armed forces on economic conditions. He declared that: "The victory of violence is based on the production of arms; arms are based on production in general, hence, on the 'economic might', on the 'economic position', on the *material* means at the disposal of the armed forces," and further down: "nothing is more dependent on economic conditions than the Army and the Navy. The level attained by production and transport at any given moment determines the weapons, structure, organisation, tactics and strategy of the army."^{*}

The armed forces develop alongside the productive forces and the relations of production. A change in the social formation results in a change in the organisation of defence, changes in the strategy and tactics of the army, and changes in the organisation of the military economy.

The organisation of the war economy of capitalist countries reflects the antagonistic contradictions of the capitalist system. As Lenin said: "Never before has the military organisation of a country had such a close bearing on its entire economic and cultural system."^{**}

Thus it is that imperialist aggression forces the socialist state to build up its defence potential.

Soviet strategy and the organisation of war economy relied on the rapid growth of the socialist productive forces. The growth in the defence might of the U.S.S.R. is a result of the October Revolution, which abolished private ownership of the means of production, created conditions for rapid economic growth and strengthened the Soviet state, led by the Communist Party.

"...*The socialist system of economic organisation*," Kalinin said at the Seventeenth Party Congress, "*our remarkable successes in industry and the collectivisation of the peasants create defence reserves, unprecedented in any other social formation.*"

World wars, in particular the Second World War, corroborate the Marxist-Leninist statement that military operations depend to an increasing extent on the success of the

^{*} Friedrich Engels, "Ausgewählte militärische Schriften", Bd. 1-2, Berlin. *Min. für Nat. Verteidigung*, 1958-64. Bd. 1—1958, 792 S., Bd. 2—1964—720 S.

^{**} Lenin, *Collected Works*, Vol. 8, p. 52.

general mobilisation of economic and labour resources, and that organisational factors are extremely important in creating and developing the war economy. We are witnessing the growing influence exerted by wars on all spheres of social life.

During the First World War more than 70 million people were cut off from productive work; during the Second World War more than 110 million. Four-fifths of the world population participated in the last war in one way or another. According to the Bank for International Settlements "up to the summer of 1945 the total cost of the Second World War (the war expenditure borne by the different Treasuries) would seem to have been in real values fully four times as high as the First World War."^{*} According to other sources the cost of the Second World War exceeded that of the First by even more. According to Hyman Lumer: "Whereas the wars of the nineteenth century accounted for 8% to 13% of the national income of the participants, World War I, which cost some \$208 billion in direct military expenditures alone, accounted for a good 50%. . . ."

"These figures are in turn completely dwarfed by the expense of World War II, whose total direct military cost (excluding the war in China from 1937 on) is estimated at \$1,117 billion, a sum equal to about 60% to 70% of the combined national income of all participants."^{**}

The vast motorised armies of the Second World War demanded constant supplies of people, arms, vehicles, uniforms, food and general war materials. A modern army engaged in action cannot long be maintained by economic reserves. Production soon becomes decisive in keeping the war machine running. The problem of supplying a modern warring army boils down to organising the war industry.

The Second World War showed that modern wars can be conducted only by countries with powerful war industries, i.e., those with big power stations, a highly developed ferrous and non-ferrous metal, engineering, solid and liquid fuel, and chemical industries. To wage a modern war a country must also possess a well-organised transport

^{*} Hyman Lumer, *War Economy and Crisis*, N.Y., 1954, pp. 15-16.

^{**} Ibid.

system, which in addition to moving armies and provisions, must be able to supply raw materials and fuel to the war industry and the industries associated with it. In a modern war it is vitally necessary to maintain a high level of agricultural production as well as a high level in the food and other light industries supplying millions of soldiers and workers with their daily necessities.

Food is the most important component of every country's defensive might. In modern wars a large percentage of the male and even of the female population is enlisted by the army, and new labour resources have to be found for transport and the war, raw material and power industries. It also becomes essential to mobilise all financial resources to cover the heavy war expenditure.

The Second World War therefore affected all branches of the economy and the problem of organising the war economy became the problem of organising the economy as a whole.

Socialist planning during the Great Patriotic War will forever figure vividly in the history of planned economy. As regards scale and historical importance, it was the first attempt in world economic practice to use methods of economic management in the interests of a victory over imperialist aggression. The Soviet state used planning to create a war economy in the shortest possible time, to rehabilitate the economy of the liberated regions while the war was still in progress and, in the final stages of the war, to prepare the economy for rapid post-war reorganisation.

A week after the outbreak of the Great Patriotic War the U.S.S.R. Council of People's Commissars approved the economic mobilisation plan for the third quarter of 1941, providing for the switch-over of the economy to war production. A rapid increase in the output of the war industry became a vital necessity. In the third quarter of 1941 alone the output of war materials was to exceed the planned figure by 26 per cent. The plan provided for an immediate and substantial increase in the output of machine tools, special machine tools, presses, forging presses, high-quality rolled stock (100 per cent increase in special rolled stock) and aviation fuel. A change in the output of the food and other light industries allocated a far larger share to army supplies.

According to the mobilisation plan capital investments, materials, equipment and the labour force were concentrated on priority construction jobs. The number of construction jobs originally included in the 1941 plan was decreased by two-thirds. The approved list of high-priority construction jobs included war factories, power stations, factories of the fuel, iron and steel, chemical industries and railways for military purposes. The People's Commissariats were obliged to accelerate defence construction and built power stations in the Volga area, the Urals and Western Siberia. All construction in Leningrad, the Western regions and the Baltic republics was stopped and to economise commodity stocks the retail trade turnover was cut by 12 per cent. The mobilisation plan also provided for the creation of fuel reserves.

On August 16, 1941, the Government and the Central Committee of the C.P.S.U. approved the military-economic plan for the fourth quarter of 1941 and for 1942 covering the regions of the Volga area, the Urals, Western Siberia, Kazakhstan and Central Asia and providing for the construction of a large industrial defence centre in the Eastern regions of the country. Immediate tasks included the evacuation of war industry enterprises and their associated branches from areas near the front; the expansion of the fuel, power and metallurgical bases in the Eastern regions; increased production of food and army supplies and the building of railways connecting the East with the central regions of the country. The plan envisaged the commissioning of power stations with a capacity of 1,386,000 kw, five new blast furnaces, 27 open hearth furnaces, a rolling mill, and the opening of 59 coal mines.

The mobilisation plan for the third quarter of 1941 and the war economic plan for the Eastern regions for the fourth quarter of 1941 and for 1942 were the first war-time plans to effect a switch-over of Soviet economy to war production. By remoulding the economy according to plan, the Soviet Government solved the difficult task of evacuating factories from danger areas. In three months, 1,360 large plants were evacuated, reconstructed and resumed normal production at new sites.

In reorganising industry a great many civilian metal-working plants had to be switched to the production of

arms and war materials. The raw material branches of heavy industry and the branches of the food and other light industries also concentrated on fulfilling military needs. Small-scale industry, subordinated to local authorities, was drawn into filling war orders, as were also co-operatives.

The military reorganisation affected all branches of the economy and also the bodies of state administration. New war economic levers emerged—the rationing system, money issue in excess of the commodity circulation, labour mobilisation and rigid centralisation of the economy.

In spite of enormous difficulties, the military reorganisation took up only the second half of 1941 and the first half of 1942. Up to December 1941 industrial output fell steadily and between June and November the gross industrial output decreased by 110 per cent. In comparison with June 1941, the production of ferrous rolled stock decreased by 210 per cent, of non-ferrous rolled stock by 330 per cent and of ball bearings by 2,000 per cent. November and December 1941 were the critical months ... then, in March 1942 industrial production began to rise.

The military economic plans of the Soviet Union for 1942, 1943 and 1944 channelled all resources into an all-out expansion of war production. Between January and December 1942 the gross output of industry grew by more than 50 per cent: in fact the 1942 plan for the output of war equipment was fulfilled and in a number of cases even overfulfilled. In December 1942 the output of aircraft had grown by 230 per cent as compared with January 1941, that of tanks had almost doubled, artillery systems had increased by 80 per cent, machine guns by 90 per cent and rifles by 55 per cent, etc.

This was a remarkable feat, especially since, at the beginning of the war, the tank and aircraft industries were only just mastering the production of new types of military equipment. Similarly, the Moscow coal basin, which became extremely important in supplying the war industry and the population of Moscow with fuel, was restored under extremely difficult conditions.

In 1943 the war economy was functioning smoothly and was rapidly expanding. The gross output of industry grew during 1943 by 17 per cent, the production of electric

power by 12 per cent, coal by 23 per cent, pig iron by 17 per cent, aluminium by 20 per cent, ammonia by 47 per cent, motor vehicles by 41 per cent, etc. The war industry expanded at an even higher rate, the 1943 output of aircraft exceeding the 1942 figure by 37 per cent. During the same period the production of self-propelled artillery weapons increased by 700 per cent, anti-aircraft guns by 65 per cent, heavy machine guns by 74 per cent and there was a corresponding growth in the output of shells and ammunition. Sown areas increased by seven per cent, the average daily traffic handled by the railways rose by seven per cent, and in 1943, the volume of centralised capital investments amounted to 19,500 million rubles.

The advance of the war economy continued in 1944. As compared with 1943 the production of pig iron increased by 31 per cent, steel by 29 per cent, rolled stock by 28 per cent, coal by 31 per cent, electric power by over 20 per cent and heavy engineering products by more than 30 per cent. In 1944, 1,100 million poods more grain were harvested than in 1943, sown areas increased by almost 16 million hectares and capital construction increased by 50 per cent over the 1943 volume. In 1943 and 1944 the absolute growth in production went hand in hand with increases in the consumption and accumulation of industry and private persons, as distinct from 1942, when this increase was achieved at the expense of an absolute decrease in consumption of the civilian branches and the people.

The war industry systematically increased its output, producing weapons which excelled those of the enemy in amounts sufficient to supply the front and create reserves. The table on page 170 shows summary data on weapons production in the Soviet Union as compared with that of Germany, the U.S.A., and Britain.

By the end of the Great Patriotic War the Soviet Army had five times more artillery, 15 times more tanks, and five times more aircraft than it had had before the war.

While accelerating the development of the war industry, the economic plans maintained the required level in the development of iron and steel, the power and fuel industries, all branches of engineering, railway construction

Average Yearly Output of Arms and Military Supplies

Type	Unit	U.S.S.R. during last three years of the war	Germany, 1941-44	U.S.A., July 1, 1940 to August 1, 1945	Britain, 1939-44
Tanks and self-propelled guns	thousands	over 30	15.4	21	5
Aircraft	"	40	19.7	59	21.4
Guns	"	120	28.5	48	21.0
Mortars	"	100	16.7	22	10.0
Machine guns	"	450	466	545	746
Rifles and sub-machine guns	"	5,000	1,889.5	3,200	400
Shells, bombs and mines	millions	over 240	166.7	83	29
Ammunition	"	7,400	. . .	8,280	2,000

and agricultural production, i.e., of all the elements needed for the smooth functioning of a war economy.

During the war years Gosplan paid special attention to plans for the development of heavy industry, in particular, to long-term plans. In 1943 a plan was drawn up for the development of industry and transport in the Urals covering the period from 1943 to 1947. Particular attention was paid to the development of the fuel industry and to the building of power stations. In 1944 Gosplan drew up plans for the restoration and development of the ferrous and non-ferrous metal industries, coal mining, the oil industry and power stations covering the period of 1945-46. These plans became the basis for the yearly economic development plans.

The success of the war economy was due to the patriotism and heroism of tens of millions of people fighting to defend their country. The victory had taxed the country's power to the utmost and had extracted a heavy toll in lives and material wealth. But the country knew that it was fighting for justice and the victory of the socialist state system. Thus people in the rear toiled to help the comrades at the front and battled to strengthen the war economy.

The Soviet war economy was successful but we should not blind ourselves to its one-sided and specific nature. Its aim was to produce war machinery and as such its re-

sources were used mainly for non-productive purposes. The switch-over of Soviet economy to war production was forced upon the Soviet Union by imperialist aggression; and while Soviet war economy was incomparably more perfect than any of the capitalist war economies, nevertheless it destroyed productive forces and interfered with planned socialist reproduction.

The productive forces in the Southern, Western and North-Western regions decreased sharply as a result of the German occupation and population figures for the occupied regions fell sharply. The nazi invaders completely or partly annihilated 1,710 towns, over 70,000 villages, over six million buildings and made about 25 million people homeless; they destroyed 31,850 factories, employing about four million workers, 65,000 kilometres of railway tracks; looted 98,000 collective farms, 1,876 state farms and 2,890 machine and tractor stations. The total loss inflicted upon the Soviet economy and the rural and urban population (including only those damages caused by the direct destruction of property) during the war amounted to the astronomical figure of 679,000 million rubles. In spite of these losses, the Soviet Government succeeded in organising the war economy and financing military expenditure at the expense of internal resources.

The growth of industry in the Eastern regions and the restoration of the economy in the liberated regions in the course of the war were a typical feature of Soviet economy during these difficult times.

War-time plans fixed the terms and priority for the restoration of economic branches, and earmarked equipment, raw and other materials, labour power and financial resources primarily for the restoration of war industry, heavy industry and the railways.

Since the drafting of plans for the restoration of the economy in the liberated regions became a major task, Gosplan decided to set up a special administration to cope with the problems. The drawing up of long-term plans for the rehabilitation and development of war devastated regions was begun as early as August 1943; later this work was combined with the drafting of the five-year plan for the restoration and development of the Soviet economy for 1946-50.

The 1943 decision of the Party and Government required that urgent measures be taken to restore the economy in the liberated regions. Over 630,000 head of evacuated cattle were returned, and over a million head sold to the collective farms in the Kalinin, Smolensk, Orel, Kursk, Voronezh, Stalingrad, Rostov, Tula, Krasnodar, Stavropol and part of the Kharkov and Sumy regions. In the second half of 1943, 595 machine and tractor stations, 969 machine and tractor repair workshops and nine repair factories were restored in these regions and 5,972 tractors were returned to the machine and tractor stations. At the same time many dwellings were renovated and rebuilt, and the collective farms were issued with seed. Urgent steps were taken to rehabilitate transport.

In 1944 attention was centred on the reconstruction of the Donbas. By 1945 over 1,000 coal mines had been restored in the liberated areas, 35 regional power stations, 15 blast furnaces and scores of open hearth furnaces set going and 28 rolling mills and scores of coke batteries had been made fully operative. Also, by the middle of 1945 some 50,000 kilometres of railway line had been rebuilt.

Considerable success was achieved in rehabilitating agriculture. By 1944, a year after the liberation of the Ukraine, the total sown area of the collective farms in that republic was 65 per cent of the pre-war area, the area sown to grain—73 per cent; by the same time 1,173 machine and tractor stations had resumed operation in the fields of the Ukraine. By the autumn of 1944 three-quarters of all Ukrainian collective farms had restored their cattle-breeding departments, and about half of the collective farms had restored their pig, sheep and poultry departments.

The restoration of housing, communal establishments, schools, hospitals and theatres was also well underway.

After the Great Patriotic War about 75,000 million rubles were spent on the rehabilitation of the liberated areas. These growing industrial and agricultural resources in the liberated areas strengthened the Soviet war economy and restored the fixed assets and industrial production to one-third of the pre-war level.

Once again we see the vital role played by socialist planning in ensuring the smooth functioning of the war

economy, mobilising resources for the war and in restoring the economy.

War-time conditions for economic development exerted a definite influence on the organisation of economic planning.

During the war economic planning became highly centralised. The redistribution of resources, the investment priority given to the defence industry and the limitations imposed on a number of key commodities made centralised distribution the only practical way of handling the bulk of resources. As a result the amount of centrally distributed products more than doubled.

This made for a considerable increase in the number of indices in the plan. The quarter-yearly distribution plans provided for 120 consumers, and the total number of indices in supply plans exceeded 30,000. The distribution balances and plans drawn up by Gosplan determined to a considerable extent the movement of all the basic elements of production: equipment, metal, fuel, raw materials and labour force. They also decided the allocation of military supplies. The urban population was supplied with rationed food and consumer goods according to centralised plans.

The increased centralisation in planning during the war also increased direct state intervention in the economy. To ensure the fulfilment of plans the state had to mobilise workers for factories, building projects and transport. During the war effective economic management could be ensured only by greater centralisation of planning.

The mobilisation, development and efficiency of the Soviet war economy was an important factor in ensuring the Soviet Union's victory over nazi Germany.

Socialist Planning in the Post-war Years

During the immediate post-war years, the Soviet economy developed according to the *Fourth Five-Year Plan for the Restoration and Development of the U.S.S.R. Economy for 1946-50*.

The chief task of the five-year plan adopted by the Supreme Soviet in March 1946 was, firstly, to raise industry

and agriculture to the pre-war level and then to surpass it. The plan envisaged the completion by 1946 of the post-war reorganisation of the economy, and the use of the war industry's production capacity for a further increase in the country's economic might. The post-war reorganisation of the economy called for a radical change in economic development and of its proportions in conformity with the task of peaceful socialist construction.

By 1946 the Soviet industry had been almost completely reconverted to peace-time production and the relation between war and civilian production had changed. The output of war materials decreased sharply while the output of civilian products steadily grew. The sudden decrease in the war industry cut the general level of industrial output in 1945 and 1946 but increased the volume of civilian output. In 1946 the output of all civilian industry grew by 20 per cent, while engineering works, which had been particularly busy with war orders during the war, produced 50 per cent more civilian products than they had in 1945.

Civilian production was increased by employing existing capacities, commissioning new enterprises and also by extensive use of war industry capacities. Many hundreds of large enterprises, previously dedicated to fulfilling war orders, were switched to the production of equipment for industry, agriculture and transport, and also to the output of essential goods.

The post-war reorganisation changed the relations of the different types of production within the civilian industries. Industries which had been checked by the war were now being rapidly developed. War-time needs now gave way to peaceful construction.

The post-war reorganisation of the economy also changed the distribution of the national income and the structure of the U.S.S.R. State Budget. The share of war expenditure in the national income dropped sharply, while accumulation and consumption increased accordingly.

More budget funds were then appropriated for economic and cultural construction and less for military needs. The 1946 budget appropriations for the Ministry of Defence amounted to one-third of the 1943 figure and were substantially lower than the military expenditure for 1940

which had accounted for 32.6 per cent of the total budget expenditure: 1946 accounted for 23.9 per cent, 1947 for 18.3 per cent, and 1948 for only 17.9 per cent.

The national standard of living now rose rapidly. In 1946 obligatory overtime was abolished, paid holidays for factory and office workers were re-established and a large network of rest homes and holiday centres was organised. In 1947 a money reform was carried out and the rationing system was abolished. The most important directive of the five-year plan, the strengthening of money circulation and the re-introduction of unrationed trade, had now been accomplished.

The money reform and the abolition of rationing were made possible by the successful restoration and development of the economy and state control of large food and commodity reserves. Indicative of the increment in commodity stocks in 1947 was the 33 per cent growth in the output of the textile and light industries, the substantial rise in the output of the food industry, the increase in sugar production by 110 per cent, the fish catch by 27 per cent and the output of vegetable oil by 24 per cent.

Another important factor was that the Soviet Union had a deficit-free state budget, the revenue in 1946 exceeded the expenditure by 17,900 million rubles, and in 1947 by about 24,000 million rubles.

The rationing system was abolished in the Soviet Union earlier than in other European countries which had participated in the Second World War.

The restoration of the economy and of social and cultural institutions in the liberated areas had been largely completed by 1949, the fourth year of the five-year plan. In the fourth quarter of 1949 the gross industrial output in these areas exceeded the pre-war level by six per cent. At the end of 1949 the production of coal and electric power, the output of tractors, cement, superphosphate and other types of industrial products also exceeded the pre-war level. The iron and steel industry in the South, the mines in the Donbas and the Moscow region and many power stations were revived under the Fourth Five-Year Plan.

At the same time as industry was being rehabilitated, new factories and even complete new industries were being

built in the liberated areas. The production of new types of farm machinery, motor vehicles, diesel locomotives, diesel tractors, motorcycles and modern machine tools was organised, and in the Ukraine work was begun on the production of important types of mining equipment. Automobile and tractor factories sprang up in Byelorussia, in Moldavia engineering works were built and light industry expanded, and in Lithuania the production of machine tools, electric motors and farm machinery was underway. Transport, electrical engineering and instrument building were developed in Latvia, and in Estonia a large-scale gas and shale industry was formed.

The planned targets for the restoration of state farms, collective farms and machine and tractor stations were also fulfilled. In 1949 the harvest of grain, sugar beet, flax, sunflowers, potatoes and other crops in the war-devastated regions exceeded the pre-war level. Sensibly, the five-year plan provided not only for the restoration of these collective farms and machine and tractor stations that had existed before the war, but also for the setting up of many new ones. Agriculture in the Western parts of the Ukraine and Byelorussia, in Latvia, Lithuania, Estonia and Moldavia had been largely rehabilitated by collectivising working peasant households, which was in the main completed by the end of the five-year plan.

By the end of 1949, 90 per cent of all town houses devastated by the war had been restored.

The key tasks of the Fourth Five-Year Plan had thus been fulfilled and in the first three years covered by the plan the Soviet economy had surpassed the pre-war level. The national income of the Soviet Union had increased by 16 per cent and gross industrial production by 18 per cent, as compared with 1940. The 1940 output of power was surpassed in 1946, of coal in 1947, of steel and cement in 1948, of pig iron and oil in 1949 and of leather footwear and cotton cloth in 1951.

According to the five-year plan, Soviet industry was in 1950 to outstrip the 1940 level by 48 per cent. In fact the actual gross output in 1950 exceeded the 1940 level by 73 per cent, i.e., the plan had been overfulfilled by 17 per cent. The high growth rate of industry during the Fourth Five-Year Plan period was due to the rapid advance of

the raw material branches of industry and engineering. Between 1946 and 1950 the production of pig iron and steel grew by 120 per cent, rolled stock by almost 150 per cent, while the production of steam turbines and tractors increased 13-14-fold. Coal, oil and power output also increased substantially.

Fulfilment of the Fourth Five-Year Plan for the Development of the Soviet Economy for 1946-1950

	1950 as a percentage of 1940	
	plan	actual fulfilment
<i>Industry</i>		
Gross industrial output	148	173
Ferrous metals	135	145
Oil	114	122
Coal	151	157
Electric power	170	187
Engineering	200	230
Chemicals	150	180
Cement	180	180
Cotton cloth	119	99
Woollen cloth	132	130
Footwear	114	96
Granulated sugar	110	117
<i>Agriculture</i>		
Gross output	127	99.5
Cattle	139*	120*
Sheep and goats	175*	141*
Pigs	300*	230*
<i>Transport</i>		
Railway freightage	128	145
<i>Capital investments</i>		
Total for 5 years (000 million rubles)	250	306
<i>National income and trade</i>		
National income	138	164
Retail trade	128	110

* Compared with 1945.

The food and other light industries were not only restored but even expanded during the Fourth Five-Year Plan period. In 1950 the production of consumer goods surpassed the 1940 level by 23 per cent. The pre-war level was also surpassed in the output of woollen and silk materials, knitted underwear, rubberised footwear, animal and vegetable fats, meat, sugar, fish, canned goods and confectionery. The output of cotton and linen cloth, stockings and socks, knitwear and leather footwear fell short of the pre-war level.

The table on page 177 shows that during the period covered by the plan railway freightage also exceeded the pre-war level and capital investments in the economy exceeded the planned figures by 22 per cent. Between 1946 and 1950 more than 6,000 factories were either constructed or restored. Industrial fixed assets increased by 58 per cent over the 1940 level.

The war had badly weakened collective and state farm economy, and it was not surprising that the Fourth Five-Year Plan failed to fulfil agricultural targets, and agricultural production only reached the pre-war level. True, this involved strenuous efforts. In view of the rapid pace of industrial development this low level of agricultural production was a danger to Soviet economic advance.

The rehabilitation of the economy under the Fourth Five-Year Plan was based on the reinforcement and development of socialist property, the further socialisation of production, and the augmentation of the organisational and economic role of the state. When the development of the productive forces reached the pre-war level, the socialisation of labour and production was higher than it had been before the war. This was achieved by increasing the role of large state enterprises, improving the technical equipment of collective farms and by carrying out the collectivisation of peasant households in the Western parts of Byelorussia and the Ukraine, in Estonia, Latvia and Lithuania.

The organisational and economic activity of the Soviet state was aimed at restoring the economy as quickly as possible, and at achieving a high economic growth rate. In a decision of the U.S.S.R. Council of Ministers on the State Plan for the Restoration and Development of the

Economy for 1947, the Soviet Government drew the attention of ministries, departments and republican Councils of Ministers to the fact that the fulfilment and overfulfilment of the Fourth Five-Year Plan depended on a radical improvement in the management of enterprises and in production planning.

The drafting and implementation of average progressive output standards was designed to improve economic planning. The U.S.S.R. Council of Ministers pointed out that plans handed down to enterprises should aim to organise the workers and intelligentsia, make them strive to fulfil the plan, to overcome difficulties and thus create new advance in the economy. "It is essential," the decision read, "to put an end to the practice of drawing up minimised plans, which do not maximise the efforts of the people, make them indifferent to 'bottlenecks' in production, and complacent with results. State plans should think in higher terms and not base themselves on average production standards but on progressive standards, i.e., should strive to equal the performance of progressive workers."

Economic bodies were instructed to establish and record progressive technical and economic standards achieved in individual enterprises, workshops, departments, and workers' teams. On this basis average progressive output standards for overall utilisation of machines and consumption of materials could be established for every enterprise. The management of enterprises on the basis of average progressive output standards and high economic development rates was extremely important in eliminating war damage in the shortest possible time.

In October 1952 the Nineteenth Congress of the C.P.S.U. approved the directives for the *Fifth Five-Year Plan for the Development of the U.S.S.R. in 1951-55*. The new plan continued the preceding five-year plans' policy of peaceful development of the Soviet economy, the uninterrupted growth of the socialist sector and the steady increase in the welfare of the population. The directives envisaged a 70 per cent increase in industrial output and gave priority to the growth of heavy industry. The grain harvest was to increase by 40-50 per cent; the output of meat and animal fats by 80-90 per cent; milk by 45-50 per cent and industrial crops by even more.

No less formidable tasks were planned for the other branches of the economy: retail trade was to increase by 70 per cent, railway freight traffic by 35-40 per cent, etc. The main aim was to raise the material and cultural level of the people. The national income was to rise by no less than 60 per cent, real wages of factory and office workers by no less than 35 per cent and the real incomes of peasants by at least 40 per cent.

The Fifth Five-Year Plan did not provide for large-scale restoration which had, in the main, been completed by the preceding plan. However, a series of major reconstruction jobs was launched, the scale of which can be judged from the fact that the volume of capital construction under the Fifth Five-Year Plan was almost double that of the Fourth Five-Year Plan.

The new plan paid more attention to the development of the power industry. The capacity of power stations was to be doubled and that of hydropower stations trebled. The building of the giant hydropower stations at Kuibyshev, Stalingrad, Kama, Gorky, Ust-Kamenogorsk was begun under the Fifth Five-Year Plan and a proposal to harness the power resources of the Angara River was set forth. These new giant hydroelectric stations were vital for the setting up of large power systems in the European part of the Soviet Union and Siberia. The world's first atomic power station for 5,000 kw was also built during the Fifth Five-Year Plan period.

The Fifth Five-Year Plan provided for an expansion of the production capacities of iron and steel and for the creation of new metallurgical centres. It contained projects for the building of the Cherepovets, Karaganda, Orsk-Halilovo and the Transcaucasian iron and steel works. The building of new iron and steel works in the East was of great importance to the industrial development of Siberia and Kazakhstan.

Oil production was intensified in the East and a number of oil refineries were built there and in the European areas of the Soviet Union. This improved the distribution of the productive forces and created conditions for the reorganisation in later years of the Soviet Union's fuel and power balance.

The Fifth Five-Year Plan also envisaged the rapid de-

velopment of the chemical industry, a necessity if technical progress and an increase in the output of consumer goods was to be maintained. The directives stipulated an increase in the production of plastics, dyes, raw materials for synthetic silk, substitutes for non-ferrous metals and particularly synthetic rubber from petrol gas.

To be able to carry out planned reconstruction and supply the necessary machinery, the output of the engineering industry had to be doubled. High on the list of priorities for the engineering industry was the supply of equipment for the rapidly expanding power-metal-fuel group, for to re-equip the engineering industry it was necessary to develop the production of up-to-date machine tools and forging presses and introduce automation. This in turn called for the building of many new types of instruments. The plan provided for an increase in the production of rolling equipment by over 100 per cent, in high precision machine tools by about 100 per cent, in heavy forging presses by 700 per cent, in control and measuring instruments, automatic and telemechanical devices by 170 per cent, and in chemical equipment by 230 per cent. The Fifth Five-Year Plan was not only concerned with advancing the Soviet economy; it was also closely linked with the urgently needed socialist construction in the Asian and European People's Democracies. The Fifth Five-Year Plan served to consolidate and expand the economic co-operation of the Soviet Union with the People's Democracies.

By fulfilling the plan, the Soviet Union had scored great successes in the field of economic and cultural construction. The Twentieth Party Congress noted that the targets set by the Nineteenth Party Congress for the Fifth Five-Year Plan had been fulfilled and that the Soviet Union now had a powerful socialist industry, larger resources than ever before and highly skilled personnel to ensure their utilisation.

The most important economic and political result of the Fifth Five-Year Plan was the further consolidation of the socialist economic system and the development of the links between the Soviet Union and other socialist countries. The overfulfilment of planned growth targets for the national income, real wages and retail trade volume brought a substantial rise in living standards.

Fulfilment of the Fifth Five-Year Plan for the Development of the U.S.S.R. for 1951-55

	1955 as a percentage of 1950	
	plan	actual
<i>Industry</i>		
Gross industrial output	170	185
Rolled stock	164	169
Coal	143	150
Oil	185	187
Electric power	180	187
Engineering	200	220
Cement	220	220
Cotton cloth	161	151
Woollen cloth	154	162
Leather footwear	155	132
Sugar	178	136
<i>Agriculture</i>		
Gross output of		
grain	140-150	129
raw cotton	155-165	109
sugar beet	165-170	147
sunflower	150-160	211
flax fibre	140-150	149
Meat production	180-190	130
Milk production	145-150	119
<i>Transport</i>		
Railway freight traffic	135-140	161
<i>Capital investments</i>		
As a percentage of the Fourth Five-Year Plan . . .	190	191
<i>National income and trade</i>		
National income	160	168
Real wages	135	139
Real incomes of collective farmers	140	150
Retail trade	170	189

The targets set by the five-year plan for industrial development were fulfilled in four years and four months. With a few exceptions (some types of non-ferrous metals and timber), the targets set for heavy industry were overfulfilled, although, due to a shortage in agricultural raw

materials, the output of some light industry products (cotton cloth, leather footwear, sugar) fell short of the plan.

The most important defect in industrial development during the period under review was the failure of many industries to fulfil the targets for an increase in production capacities, and also the failure of coal mining to meet economic requirements. Similarly the capacities of electric power stations did not increase fast enough and some engineering factories lagged behind plan.

But the overall volume of industrial output grew rapidly and the annual plans for the output of industrial goods were accurately fulfilled.

Industrial Growth Rates for 1951-55
(as a percentage of the preceding year)

	Plan	Actual	Per cent of fulfilment
1951	112	116	103.5
1952	110	111	101
1953	111	112	101
1954	110	113	103
1955	109	112	103

Special measures had to be taken to develop agricultural production which noticeably lagged behind planned targets and hampered economic development. To these ends the Party worked out a set of measures intended to effect a rapid rise in agricultural output.

The September (1953) Plenary Meeting of the Central Committee of the C.P.S.U. discussed the state of agriculture and introduced a number of measures to spur on its development. Admitting that considerable successes had been achieved by state farms and collective farms since the war, the Plenary Meeting noted that "the level of agricultural output does not fully satisfy the growing food requirements of the population nor the increasing need of food and other light industries for raw materials; neither does it correspond to the technical equipment of agriculture or the inherent potentialities of the collective farm system". The reason responsible for the lagging behind of

agriculture was that collective farms and farmers were not materially interested in the development of agricultural production, and the established system of computing compulsory deliveries of agricultural products. Inefficient management of collective and state farms, excessive centralisation in planning and direct mistakes by Gosplan and the agricultural authorities in drafting agricultural plans were also contributory factors.

In 1953 the Party introduced economic stimuli to raise the initiative of the collective farms and collective farmers. The agricultural targets of both the Fourth and Fifth Five-Year plans were economically unfounded and the importance of administrative measures was overestimated. The three-year plan for the development of livestock breeding adopted in 1949 was a perfect illustration of the ineffectiveness of administrative planning. The plan set exaggerated targets, took no account of the fact that livestock breeding could not be raised without a corresponding fodder basis and failed to provide material incentives for collective farms and collective farmers.

Measures taken by the Party in 1953 and in later years eliminated these shortcomings.

In February 1956 the Twentieth Congress of the C.P.S.U. approved the directives for the *Sixth Five-Year Plan for the Development of the Soviet Economy for 1956-60*. The principal aim of the Sixth Five-Year Plan was to assure—by means of the priority development of heavy industry, continuous technical progress and higher productivity—a further expansion of all branches of the national economy and a steep rise in agricultural production. Only in this way could a substantial advance in the material and cultural standards of the Soviet people be achieved. The Congress noted that the Soviet Union possessed all the requisites necessary for a speedy solution to the task of overtaking and outstripping the leading capitalist countries in per capita production.

The directives for the Sixth Five-Year Plan set the following key tasks. In the five years covered by the plan, industrial production was to grow by approximately 65 per cent, the gross grain harvest was to reach 11,000 million poods a year, and the volume of capital investment was to increase by 67 per cent over the Fifth Five-Year

Plan. The national income was to rise by about 60 per cent, real wages by 30 per cent and the real incomes of collective farmers by no less than 40 per cent. The directives also provided for a seven-hour working day, an improvement in the pension scheme for factory and office workers and the doubling of the volume of housing construction.

In September 1957 the Central Committee of the C.P.S.U. and the U.S.S.R. Council of Ministers published their decision *On the Drafting of a Long-term Plan for the Development of the Economy for 1959-65*.

Seven-Year Plan for the Development of the Soviet Economy for 1959-65

In February 1959 the Twenty-First Congress of the C.P.S.U. approved the *Control Figures for the Development of the Soviet Economy for 1959-65*. The Seven-Year Plan provided for a further growth in the productive forces of socialist society, for the strengthening and development of socialist production relations and set the economy on the road to communism. The most important economic task of the Seven-Year Plan was to assure a further powerful advance of all branches of the economy by giving priority to the growth of heavy industry and by a considerable reinforcement of the country's economic potential in order to ensure the continuous rise in the living standard of the people.

The period covered by the Seven-Year Plan was an important stage in the building of the material and technical basis of communism. The plan outlined a sweeping programme for the expansion of the country's basic productive assets, for the technical equipment of the economy and for a further increase in labour productivity on that basis.

The Seven-Year Plan ensured the all-round development of all economic regions, changed the distribution of the productive forces and assured the advance of the economy of all Union republics. The Eastern regions developed particularly rapidly. More than 40 per cent of all state investments were directed to the economic development of the Urals, Siberia, the Far East, Kazakhstan and Central Asia.

Further industrialisation of the Eastern regions was promoted by the building of a third metallurgical centre in that part of the country and the rapid development there of the fuel, power, chemical and engineering industries.

Fulfilment of the Seven-Year Plan by Industry

	1959-65	
	plan	fulfilment
Gross industrial output, per cent	180	184
Including:		
group A	185-188	197
group B	162-165	159

On the whole, the tasks of the Seven-Year Plan for industrial development were overfulfilled, especially by the key industries.

Unit	1965	
	plan	fulfilment
Steel (million tons)	86-91	91
Oil (million tons)	230-240	243
Machine-building and metal-working (per cent)	100	140

During the septennium the fixed productive assets of Soviet economy increased by 90 per cent, those of industry doubled. About 5,500 large factories were built during that period. The power available to labour increased by 60 per cent.

The improvement in the structure of Soviet industry was one of the most important results of the Seven-Year Plan. This was achieved through the priority development of the branches of industry which secured technological progress and raised the efficacy of social production. Here are some data:

1965 (1958=100)	
Gross industrial output	184
Including:	
power	120
machine-building and metal-working	140
chemical	almost 150
oil	120
gas	330

Vivid proof of the betterment in the structure of Soviet industry is the improvement in the fuel balance structure achieved during the Seven-Year Plan period. The share of oil and gas, the most economic types of fuel in the U.S.S.R fuel balance, rose from 32 per cent in 1958 to 52 per cent in 1965. This naturally saved a lot of funds.

During the Seven-Year Plan period the Soviet Union also made marked scientific and technical progress. This is attested by the remarkable Soviet successes in space exploration, nuclear physics, rocketry, aircraft construction, electronics and other branches.

The accelerated technological progress helped equip all industry, including essential goods factories with the latest machines. This naturally raised the output of the latter. The data below show how the 1965 output in essential goods compared with that of 1958.

	1958	1965
Textiles of all type (000 million metres)	7.5	9.1
Knitwear (million pcs)	496	907
Leather footwear (million pairs)	356	486
Granulated beet sugar (million tons)	5.2	8.9
Radio sets (thousand pcs.)	3,902	5,159
TV sets "	979	3,655
Domestic refrigerators "	360	1,675

Agricultural output also grew during this period. The gross grain harvest grew from an average 121.5 million tons in 1956-60 to an average 130.2 million tons in 1961-65; that

of raw cotton correspondingly from 4.4 million tons to 5 million tons. Meat production (slaughtered weight) rose from 7.9 million to 9.3 million tons. However, the tasks of the Seven-Year Plan for agriculture were not fulfilled. The gross agricultural output increased by only 14 per cent. The 23rd Congress of the C.P.S.U. noted that the lagging of agriculture put a brake on the advance of the Soviet Union and arrested the development rates of group B. The Communist Party worked out a set of interlinked measures aimed at overcoming the lagging behind of agriculture. These measures are already having a telling effect.

The other economic branches made no less important progress during the Seven-Year Plan period. Between 1959 and 1965 the volume of capital construction (building and assembly rose by 49 per cent. The Seven-Year Plan task for freight turnover was overfulfilled, its re-equipment was accelerated. The share of electric and diesel traction in the railway freight turnover rose from 26.4 per cent in 1958 to 85 per cent in 1965. Marine tonnage increased by 150 per cent, the aggregate length of oil and gas pipelines by 170 per cent.

The national income of the U.S.S.R. being used for consumption and accumulation, increased during the septennium by 53 per cent. This made it possible to raise the real income and consumption level of the population. The volume of the retail trade turnover rose between 1959 and 1965 by 60 per cent. At the same time the trade turnover structure improved, since high-quality goods, in high demand by the population, were sold at much faster rates.

Housing construction assumed an extensive scale. Between 1959 and 1965 a total of 556 million square metres of new floor space were erected, which exceeded the 1952-58 figure by 90 per cent. To appreciate the scale of housing construction during the septennium, it should be remembered that the new housing space made available to the population between 1959-65 was almost equal to the volume of housing construction during all the Soviet years up to 1958. During the past ten years (up to 1965) almost half the Soviet population moved into new houses or improved their living conditions.

During the period under review important measures were also taken to raise the living standard of the people.

These included wage increases for factory and office workers, higher tariff rates and wages for low-and medium-paid brackets, tax privileges and exemptions for many categories of workers, the introduction of pensions for collective farmers, a rise in the pension for some categories of pensioners. The grants and privileges received by the population out of public consumption funds increased during that period by 74 per cent.

The introduction of the seven-hour working day for most workers, and of a six-hour working-day for some categories, was an important event in the life of millions of Soviet people.

Further Development of Soviet Economy

The Twenty-Second Congress of the Communist Party of the Soviet Union, held in October 1961, adopted a new Party Programme, a programme of communist construction. The Programme outlines the tasks of the Soviet economy for twenty years ending 1980. The building of communism presupposes the rapid development of productive forces, the growth of socialist production relations into communist production relations, a new cultural upsurge and the moulding of people worthy of a communist society.

The main economic task is to build the material and technical basis of communism within twenty years that will create abundance and facilitate the transformation of socialist society into communist society.

This task opens up new horizons for the development of socialist economy. Now that the Soviet people have adopted a programme for the building of communism, this aim is not so far-fetched and will be achieved within the first decade of the twenty year programme.

New concepts demand the creation of a new and far more perfect mode of production. All economic activity has now been subordinated to this task.

Every social mode of production has its own material and technical basis. The basis of communism differs fundamentally from that of capitalism, and to a large extent even from that of socialism. Karl Marx considered the

means of labour an indicator of the social relations arising between people in the course of production. Communist means of labour will be an indicator of comradely co-operation amongst people, equal in labour and distribution, living in a communist society where there is only one form of property—communist property.

What is the material and technical basis of communism? Lenin gave a scientific definition of this term. He repeatedly stressed that the whole economy must be based on an up-to-date large-scale machine industry, which means that the electrification of the whole country must be carried out before the transition to communism can be effected. Communism, Lenin said, is Soviet power plus the electrification of the whole country.

The Programme of the C.P.S.U. expounds Lenin's formula of communist construction and gives concrete details on how to apply it at the present stage of the development of the productive forces and of modern science and technology. To build the material and technical basis of communism all branches of the economy must be re-equipped. This involves complete electrification, comprehensive mechanisation and automation and the extensive introduction of chemistry and other scientific achievements. The creation of this basis will raise Soviet technology to a new and higher level of development and public means of production specific of communist society will be created. Thus the technical revolution wrought by communism assumes a much larger scale than the industrial revolution that gave rise to machine production.

Automatic production in all branches of the economy, directed by the creative labour of free people, will then characterise the communist society.

The application of higher forms of mechanisation is a typical feature of communism. First comes complex mechanisation and automation, next, fully automatic regulation and control and finally, at the highest level, production, power supply, handling devices and executive mechanisms become completely independent of man's frail dominance. Infinite horizons are opened up for increased machine capacities and for the use of new effective speeds, pressures, temperatures, types of raw materials, technological processes, etc.

Synthetic products and new high-efficiency *objects of labour* are playing an ever greater role in communist production. Chemistry is being applied more and more extensively as it becomes vitally important to increase the strength and endurance of metals and other materials, particularly those working under extreme pressures, temperatures, and speeds.

It is now becoming easier to manufacture materials and products possessing pre-arranged properties not to be found in nature. Man's penetration into the bowels of the earth and his utilisation of the biological and material resources of giant water reserves will also open up new sources of raw materials.

The technology of communism, the system of machines ensuring the universal application of comprehensive mechanisation and automation, the extension of the raw material basis and the creation of new materials require a fantastic development in the power industry, a vast increment in the supply of electricity for motive power and technological processes, and presupposes the electrification of the whole country.

Electrification becomes the common denominator for the technical improvement of production. Lenin's demand for overall electrification is the cornerstone of the programme of communist construction. "Electrification based on the Soviet system will mean the complete success of the foundations of communism...,"* Lenin said. Science will soon open up new and inexhaustible sources of energy and will develop new methods of harnessing it.

This presupposes radical changes in technology, industrial efficiency and the transition to a new level in the organisation of production. Science will be organically linked with production and will itself become a productive force, while production will be the technological application of modern science. Lenin said that communism could not be built without modern technology, without new scientific discoveries.

The radical change in the instruments and objects of labour, in the power industry, the technology and organisation of production will create a new type of enterprise.

* Lenin, *Collected Works*, Vol. 30, p. 368.

The 20-year programme envisages developments unparalleled in history. One single power grid for the whole of the U.S.S.R., pooling all the power resources of the country, will dispense 500,000,000 kw of electricity, and hundreds of thousands of kilometres of mainlines and distribution networks will be built. Social production and the everyday life of millions of people will depend on the smooth operation of this giant system. The world will never have seen so vast a scale of socialisation of production. The capacity of operative power stations in the U.S.A. in 1960 was 185 million kw. But the U.S.A. has no single power grid and power is distributed purely to ensure maximum profits for the large monopolies.

Communist society will also have a single transport network which will embrace and interlink the railway, automobile, river, sea-going, air and pipeline transport systems. Even under socialism all transport forms a single network, an economic unity, and is owned by society and works in its interests. Gradually the transport network will acquire complete technical unity, devices for the synchronised working of some modes of transport will be installed, control will be automatic, etc. Under capitalism there can be no single transport network, since private ownership precludes any real unity of transport and hence any really effective organisation.

National water supply systems will become even more important than they are now. The Volga water supply system, for instance, covers an area larger than many countries. It supplies enormous power stations, transport systems, thousands of large populated centres and vast agricultural areas. Also, by diverting the course of several northern rivers the water resources of the Volga system will be substantially increased.

The Soviet Union possesses the largest and most perfectly equipped power stations, iron and steel works and agricultural and industrial enterprises in the world.

The transition to communism does away with differences in technical level between various industries still existing under socialism. Under communism the equipment per worker in agriculture, all types of transport, and in the sphere of public amenities will be elevated to the level of industry, the most highly developed economic branch.

The building of the material and technical basis of communism presupposes a further improvement in the distribution of the productive forces. Enormous natural wealth, especially that of the Eastern regions, will be drawn into social production. The all-round development of all large economic regions will be undertaken, and rational economic links will be established between them. The Marxist-Leninist prediction that production would be uniformly distributed and that existing disparities between town and country would be abolished, is becoming a reality. Gradually the level of economic development in the various parts of the country and the incomes of the inhabitants, will be equalised.

The building of the material and technical basis of communism necessitates radical changes in the character of labour and the labourer. Unmechanised and unskilled physical labour will become a thing of the past. As the cultural and technical level of the workers grows, their skills will begin to resemble those of engineers and technicians. Moreover as automation develops and technology improves, workers' functions will consist more and more in organising technological processes, the adjustment, regulation and control of vast systems of machinery, and in all sorts of designing, preparational and experimental work. Only workers with a good all-round education can be entrusted with such work.

Only a firmly grounded material and technical basis can achieve communist labour productivity, an abundance of material wealth and the highest possible standard of living. Thus the building of the material and technical basis of communism is linked with deep social reforms, it is a prerequisite for the abolition of the disparity between manual and mental labour, between town and country and between the two forms of socialist property (state and co-operative) and their transformation into a single communist property.

The rapid development of the material and technical basis of communism ensures the defensive might of the U.S.S.R., a necessity while aggressive imperialist countries still threaten world peace. This basis will also exert an enormously beneficial influence on the building of socialism and communism in the countries of socialist community.

The building of the material and technical basis of communism is a gradual process. It would be wrong to think that existing factories, railways and means of production belonging to collective and state farms will be scrapped, while new and more perfect communist enterprises spring up overnight, like mushrooms, to replace them. On the contrary all enterprises now being built are based on the most up-to-date techniques and will eventually become communist enterprises.

The technology of the future will contain many of the elements existing at the present moment. This vast communist construction is based on scientific and technical foundations in keeping with trends of historical development. Soviet economic development follows these trends, and the technology of future communist production, with its powerful electrified and automated instruments of labour, highly intensive operating duties, new processing techniques and automatic control is thus gradually being created. Soviet spaceships, rockets and sputniks are perfect examples of fully automatic complex systems operating reliably in unusual conditions. The epoch-making discoveries in the atomic industry and space research are also revolutionising industry.

Socialist enterprises are even now acquiring some of the productive and technical aspects typical of communist enterprises. Scientific and technical progress under socialism and communism knows no bounds in its task of shaping the development of the material and technical basis of communism. Communist society embodies all that is new and progressive in every socio-economic formation. Communism is a living, developing organism. The economic foundation of communism will improve and advance at an even more rapid pace than that being developed by technical progress today. The universal application of fully automatic systems, the very probable solution of such problems as the control of thermonuclear processes, the production of electric power without power generating machinery and manufacture of materials possessing predetermined properties, etc., are some of the features of production under communism.

The creation of the material and technical basis of communism will proceed under far more favourable condi-

tions than those under which socialism was created. Then, the mobilisation of the necessary accumulations was hampered by the mixed economy, by the resistance of the capitalist classes, the underdevelopment of heavy industry, the backwardness of small-scale commodity farming, the acute shortage in scientific and technical personnel, capitalist encirclement and the technical and economic dependence on bourgeois countries. To build socialism the people had to make enormous sacrifices.

The Soviet Union has a unified socialist system of economy, a powerful industry, highly productive collective and state farms, a huge army of qualified and professional people; it is a member of the invincible socialist community and is fully independent of the capitalist countries both economically and technically.

The problem of accumulation is the stumbling block for every developing mode of production. The building of the material and technical basis of communism requires vast accumulations for the construction and modernisation of factories and for the increase of circulating capital. Huge funds will be needed to finance housing construction, to build cultural and medical establishments and to create other conditions for the reproduction of labour power and for the cultural and technical advance of the people. Capital investments in the economy over the next twenty years will amount to about 2,000,000 million rubles and will six times exceed all investments over the preceding years of Soviet power. This means that accumulations needed for the building of the material and technical basis of communism are much greater than the accumulations realised in the course of building the material and technical basis of socialism.

The accumulations that went to finance the building of socialism were provided by the absolute increment in the national income and by the increase in the share of accumulation in the national income at the expense of a corresponding decrease in the share of consumption. During the First Five-Year Plan period the national income grew by 82 per cent, consumption by 64 per cent and accumulation by 150 per cent. The difficulties arising from the industrialisation drive made it necessary to accelerate accumulation. Strict economy had to be practised in all

fields and even the building of housing and schools had to be confined to a minimum.

During the full-scale building of communism increments in the national income will be the only source of greater accumulations. This means that accumulation must go hand in hand with growing consumption. The ratio of accumulation to consumption has been comparatively stable in recent years. The change in the ratio between the accumulated and consumed parts of the national income will be insignificant in the formation of accumulations. In the future a larger slice of the accumulations will go to increment fixed non-productive assets. This means that the problem of providing the necessary accumulations depends on the achievement of the necessary national income growth rate.

However, it must not be thought that purely monetary accumulations are enough. Material accumulations must coexist to counterbalance that part of the national income accumulated in the form of money.

To expand production all sorts of machinery, raw materials, building materials and means of subsistence for the newly enlisted workers are necessary and can only be created if the relevant economic branches, in particular heavy industry, reach a corresponding level of development. In this respect too there is an enormous difference between the period when the material and technical basis of socialism was built and the period of building this basis for communism. When the Soviet Union launched its industrialisation drive, it had no highly developed heavy industry, machine-building was especially backward, and it was extremely difficult to realise the necessary accumulations. A large part of the machinery needed to equip the newly built enterprises had to be imported from capitalist countries. In 1928, for example, imports accounted for 79 per cent of the total metal-working machine tools, 66 per cent of the tractors and 64 per cent of all motor vehicles in the country. Before the First Five-Year Plan the Soviet Union imported about 33 per cent of all machinery. We should not underestimate the difficulties of building socialism when the Soviet Union was still economically and technically dependent on capitalist countries. Construction was slowed down and cost increased.

The present level of industry and agriculture enables

the projected expansion in production and consumption to be secured. The technical re-equipment of the economy has been prepared by the preceding scientific and technical progress of the U.S.S.R.

A great number of highly skilled and highly educated personnel is needed to shape the new mode of production. One of the greatest difficulties facing socialist construction in the Soviet Union was the shortage of specialists. Many new factories were put in charge of people who had not yet mastered progressive techniques and these factories became schools for the mass training of skilled workers and engineers. This was an extremely costly way of training the necessary skilled personnel: expensive equipment entrusted to inexperienced workers often broke down and it took a long time for the new enterprises to reach rated output. The training of a technical intelligentsia from workers and peasants took a long time but there was no other way out.

Conversely, there is now no shortage of well-trained personnel in any of the economic branches. There are, for example, about twice as many engineers in the U.S.S.R. as in the U.S.A. Soviet higher and special secondary educational establishments have the capacity to train more specialists than they do at present.

Under modern conditions science has an ever greater bearing on the development of the productive forces and the latest scientific and engineering achievements are being used for the building of the material and technical basis of communism. The middle of the twentieth century is marked by the rapid advance of science and engineering in all countries. It would therefore be wrong to belittle the potentialities for the development of science and engineering in capitalist countries. The larger capitalist countries are allocating more and more funds for research and their governments are taking pains to organise it efficiently. The share of modern machines in the equipment pool is constantly growing. Research is becoming increasingly social, large research institutes and laboratories uniting many thousands of scientists, and less and less time is necessary for scientific discoveries to be introduced into the economy. Research, designing and experimental work are merging into a single process. Bourgeois scientists are

indeed making many important discoveries. Unfortunately the principal forces of bourgeois science are applied not so much to discovering ways and means to expand social production, lower its costs, and thereby raise the welfare of the people, but are used for the enrichment of the monopolies and for militarisation. Capitalist organisation of science hampers its development and makes it anti-social.

The socialist system, on the other hand, promotes scientific and technical progress. Public property and planned proportional development of the economy, science and technology stimulate scientific and technical progress, obviate anarchy and competition, help to concentrate on key tasks, rapidly introduce progressive equipment and scrap equipment which has become obsolete.

Under socialism the creation of social wealth depends to an increasing extent on the general level of scientific and technological development and on the application of science to production.

There are now 35 times as many scientific workers in the Soviet Union as there were in pre-revolutionary Russia. A network of research institutes provided with the most up-to-date equipment has been built up practically from scratch. National research centres have been built and national scientific personnel has been trained in all the Union republics. Under socialism science belongs to the community and relies for the implementation of its achievements on a mass of well-trained and highly educated workers. Under capitalism scientists work in isolation from the masses whereas under socialism the growth of universal education and the ironing out of the disparities between physical and mental labour create reserves from which new scientists are enlisted and promote the close co-operation of scientists, workers and collective farmers. In the Soviet Union there are millions of innovators and inventors who are contributing to the progress of science and engineering. Under socialism, science and engineering work, for the first time in history, for the people as a whole and are instrumental in raising the productivity of labour, facilitating it, and shortening working hours. They thus become a powerful force for progress. In promoting the all-out development of science the Soviet Union has created important prerequisites for

the building of the material and technical basis of communism and has taken a mighty step forward to progress.

The Soviet Union is a world leader in science and engineering. Yet in spite of the high technical level of Soviet economy the Communist Party is further accelerating scientific and technical progress. The achievements of modern science and engineering are used in the building of new enterprises and this means that Lenin's behest "that learning shall really become part of our very being, that it should actually and fully become a constituent element of our social life",* is being implemented.

The most important law to be observed in building the material and technical basis of communism is that of the qualitatively new role and responsibility of science in planning and organising production, in deciding on the direction to be taken by technical progress, the types of enterprises to be built, the processing techniques and equipment to be introduced, and in raising soil fertility and animal productivity. The building of the material and technical basis of communism is a veritable triumph for modern science and engineering. Only the universal application of modern science and engineering can ensure a further increase in production at smaller outlay, and a rapid rise in labour productivity. Modern science and engineering play a decisive part in creating the material and technical basis of communism. And, in the Soviet Union, they have all the prerequisites for this construction. The Programme of the C.P.S.U. proceeds from the assumption that the building of communist society is an objective necessity and that real possibilities exist for the achievement of this aim. The Soviet economy develops at a rate which is unattainable for capitalist economies.

The high economic growth rates from 1961 to 1980 are based on 1) the striving to increase consumer goods production and accelerate the construction of housing, schools, medical establishments as rapidly as possible; 2) the necessity to equip production and the service sector with new machines and materials; 3) the determination to win peaceful economic competition with the leading capitalist

* Lenin, *Selected Works*, Vol. 3, p. 830.

countries; and 4) the desire to win the historic struggle for peace and possess all the material and technical means necessary to prevent aggression against the Soviet Union and other socialist countries.

The growth rates for various branches of the economy ensure the harmonious development of the economy and optimal proportions between all branches. The chief economic and social task is to accelerate the development of agriculture which still fails to meet social requirements. The Programme says that "along with a powerful industry, a flourishing, versatile and highly productive agriculture is imperative for the building of communism".

Progressive changes in the structure of industry will ensure the fuller satisfaction of social requirements and promote further technical progress. Electric power, means of complex mechanisation and automation, all sorts of devices, electric and radio engineering products, semiconductors, high precision machine tools, chemicals (in particular polymers, oil and gas) and non-ferrous metals begin to account for a larger share in the total industrial output. The output of light industry will also increase considerably, particularly the production of consumer goods from synthetic raw materials and the branches producing consumer durables (furniture, electric appliances, refrigerators and so on). New branches will be developed in all industries and will affect the technical level and development of industry.

While the full-scale construction of communism is proceeding, changes will have to be made in the relation of the development rates of heavy and light industries. Heavy industry invariably plays the leading role in extended reproduction, but its tasks vary at the different stages. When the Soviet Union was building a modern industry, it was forced to increase the development of heavy industry and restrain that of light industry. Now things have changed: Soviet heavy industry is able to ensure the defence of the country and the technical progress of its economy and can now be used to expand the output of consumer goods. The building of the material and technical basis of communism with its nucleus of heavy industry aims to fully satisfy the requirements of society and of every member of the community. The Soviet people are guided

by Lenin's maxim that "means of production ... are not manufactured for their own sake, but only because more and more means of production are demanded by the branches of industry manufacturing articles of consumption".*

Output figures alone are unable to give us an idea of the range of products manufactured by heavy industry. Some enterprises manufacture means of production for the heavy industry only, others produce means of production for the manufacture of consumer goods, equipment and materials for housing construction and social development. An increase in the output of heavy industry products for equipment of the food and other light industries and the services sector, expands the output of consumer goods and improves the living conditions of the population.

The available material and financial resources, labour resources and scientific and technical progress guarantee that these high growth rates will be achieved. The growth in the national income, industrial and agricultural production depend on the achievement of a higher labour productivity. To build communism labour productivity in the Soviet Union must be considerably higher than it is in the principal capitalist countries. The re-equipment of industry is the decisive material condition for the achievement of communist labour productivity. The other condition is the growth in the material and cultural standard of the people and the moulding of a new type of worker. The Communist Party aims to raise the cultural and technical level of all workers and peasants to that of the intelligentsia. The bulk of the population will thus be provided with a secondary, special secondary or higher education.

A new and higher communist organisation of social labour will raise the labour productivity to the level necessary for the creation of an abundance of material wealth. Certain social and technical conditions are necessary to be able to organise labour along communist lines. These include the creation of the material and technical basis of communism, the transition to a single form of communist property, the smoothing out of the disparities between manual and mental labour, and between town and country,

* Lenin, *Collected Works*, Vol. 4, p. 163.

the education of a communist attitude to labour and the introduction of communist principles in distribution.

The conditions for a communist organisation of labour will gradually mature during the full-scale construction of communism. The extensive application of comprehensive mechanisation and automation in production processes will solve some of the more important problems in labour organisation. Comprehensive mechanisation and automation eliminate hard physical and unskilled labour and enable the transference of many workers to other sectors. The planning bodies also provide for the training of unskilled workers. Workers made redundant by the introduction of comprehensive mechanisation and automation are then transferred to other enterprises according to plan. The remuneration of labour changes in conformity with the new nature of labour and the new organisation of production.

Agricultural labour will become a variety of industrial labour and a large number of people now engaged in agriculture will thus be freed for employment in other branches of the economy, while the organisation of agricultural labour (rating, remuneration, etc.) will resemble that of industry. As communism draws nearer moral stimuli, social consumption funds and social services acquire increasing importance. These and other new aspects of labour organisation and the wider application of material incentives for workers to raise production will continue to play an important part during the whole period of communist construction.

The achievement of the high economic growth rates provided for by the twenty-year programme will be aided by the increasingly rapid mastery of new equipment and by further improvements in planning and economic management. The Programme attaches crucial importance to the acceleration of scientific and technical progress. This will make it possible not only to maintain but, granted favourable conditions, even accelerate the growth rates in industry and agriculture. The drafting and implementation of economic plans will necessitate the participation of millions of people. The enthusiasm of the masses, born of the great ideas and successes of communist construction, the emulation of communist labour teams and of enterprises,

guarantee that socialist economy will continue to grow rapidly.

This increase in industrial and agricultural output also guarantees the victory of the U.S.S.R. in the economic race with the U.S.A.

Only under socialism, the first socio-economic formation in history ensuring a steady growth in welfare and equal cultural development, can such a high rate of economic growth be achieved. There is only one road which mankind can take to progress and a humane social system—the road to communism.

The 8th Five-Year Plan (1966-70) is an important stage in the building of the material and technical basis of communism in the U.S.S.R. The Directives on the plan were approved by the 23rd Congress of the C.P.S.U.

The new five-year plan has for its aim the rapid solution of a number of important economic problems. During the 8th Five-Year Plan period steps will be taken to increase the rate of technological progress substantially, to raise the efficacy of social production, and to optimise the basic proportions in the Soviet economy. The new five-year plan signifies a further advance along the road leading to the elimination of the essential distinctions between town and country, and between mental and physical labour. Between 1966 and 1970 important measures will be taken to consolidate public socialist property, to improve planning and economic management.

The 8th Five-Year Plan will ensure the rapid growth in the living standard of the population. Economic links and all forms of fraternal co-operation between the U.S.S.R. and the other socialist countries will develop during the period covered by the plan. The Soviet Union's defence potential will also grow.

The plan is a new stage in the development of economic planning, an advance in the science of socialist planning. Scientific planning methods will be strengthened, every single target will be scientifically founded. The Directives of the 23rd Congress of the C.P.S.U. set the task of concentrating "on the further development of the theory of planned economic management based on a deep-going study and utilisation of the economic laws of socialism". The tasks of the new five-year plan are based on scientifically estimated

requirements of socialist society, on an objective appraisal of the production resources and reserves of the country.

The main indices of the development of Soviet economy between 1966 and 1970 are given in the table below.

Soviet Economic Growth under the 8th Five-Year Plan

	1970 (1965=100)
National income	138-141
Gross industrial output approx.	150
Gross agricultural output	125*
Capital investments	147**
Railway freight turnover	123
Retail trade turnover of state and co-operative trading establishments	140
Real per capita income approx.	130

* Average for 1966-70 as compared with average for 1961-65.

** 1966-70 (1961-65 in summary=100 per cent).

One of the most important features of the new five-year plan is the clearly expressed course on the all-out increase in the effectiveness of all branches of socialist economy. This task has become particularly urgent for the U.S.S.R. because of the enormous increase in the scale of production, notably in industry. Under these conditions better use of every unit of the means of production, increase in the "return" of the productive assets means a gain of enormous size.

The Directives of the 23rd Congress of the C.P.S.U. have outlined the basic ways for raising the effectiveness of social production. This can be achieved by an all-out increase in the rates of technical progress, an improvement in the utilisation of the productive assets and capital investments, and in the quality of the output and the observance of strict economy.

The increase in the effectiveness of social production is most clearly expressed in the growth of labour productivity. Between 1966 and 1970 the labour productivity in industry is expected to rise by 33-35 per cent, in agriculture by 40-45 per cent, and in building by 35-40 per cent.

The high rates of increase in the social productivity of labour provided for by the 8th Five-Year Plan are based primarily on further technological progress and the improvement in the organisation of production and labour. The power available to labour in industry will increase by 50 per cent, in agriculture by close on 200 per cent. The plan provides for comprehensive mechanisation and automation of production, for the wide utilisation of scientific labour organisation methods. The systematic development of technically new and better output, the improvement in the quality of output in all economic branches envisaged in the plan are also of the greatest importance.

The Soviet Union marches in the vanguard of the scientific and technological revolution, the rates of which have grown steeply in the recent past. Scientific and technological progress will be accelerated by the extensive development of scientific research and the rapid introduction into production of inventions and scientific achievements.

First rank importance is attached to the further improvement of economic management. The Directives of the 23rd Congress of the C.P.S.U. emphasise that this task must be carried out through the implementation of the Communist Party's decisions on the improvement of planning, economic stimulation of production, extension of the initiative and economic independence of enterprises, and greater material incentives for the working people, making them more interested in the results of their labour. The correct combination of the centralised economic policy of the Communist Party and the Soviet Government with the development of the initiative and autonomy of enterprises is acquiring ever greater significance.

Like all Soviet five-year plans, the new plan attaches decisive importance to the development of industry. The basic tasks facing the development of Soviet industry are to raise the effectiveness of production, its technical level, improve its structure, systematically and rapidly introduce technically new output and raise its quality. All this will help to equip all branches of the economy with better means of production. Under the new five-year plan Soviet industry will steeply increase the output of highly efficient

machines and equipment and of high-quality raw and other materials. At the same time another key task is being solved by industry—to supply the Soviet population with a wide assortment of better consumer goods.

The Directives of the 23rd Party Congress set the task of improving the structure of industrial production, which is to be achieved through the priority development of heavy industry. This means that priority will be given to the development of the industries that secure the technical re-equipment of the whole economy. This refers primarily to power-machine building, engineering, chemical industry and metallurgy. These branches will develop more rapidly than the overall production of capital goods. Here are the corresponding data.

Relations Between the Development of All Industry and Its Progressive Branches Under the 8th Five-Year Plan

1970 (1965=100)	
Gross output of all industry	147-150
Including:	
group A.	149-152
power	170
chemical	100
machine-building and metal-working	60-70

The priority growth of Department I (production of means of production) remains an essential condition for the development of industry and the economy as a whole, for without it there can be no extended reproduction. The 23rd Party Congress stressed with special force that the Party will continue to conduct the Leninist policy of the priority development of heavy industry. Without it there can be no technical re-equipment of the consumer goods producing industries, without it there can be no strengthening of the defence potential of the U.S.S.R. and the whole socialist community.

One of the special features of the new five-year plan is the drawing closer of the rates of development of the

capital and consumer goods industries. This can be seen from the following data.*

Average Yearly Growth Rates for Groups A and B in Soviet Industry

	Average yearly percentage increase		
	1959-60	1961-65	1966-70
Group A	11.3	9.6	8.7
Group B	8.5	6.3	7.7
Group B growth rate relative to group A growth rate	75	66	89

The drawing closer of the growth rates of groups A and B (on the condition that those of group A continue to exceed group B) will accelerate the rise in the living standard of the Soviet people.

The technical level of all branches of Soviet industry will be raised in the period under review, and with it the economy of production. Lenin's idea of the electrification of the whole country is decisive also for the new five-year plan. The main direction taken by the development of the power industry is the building of large thermal power stations and of effective hydropower stations. The accent will be placed on the installation of 300,000 kw sets at thermal power stations. A number of 500,000 and even 800,000 kw sets will be introduced. The plan also provides for the completion of the single power grid for the European part of the U.S.S.R.

The fuel industry will also make rapid headway under the new plan, while the country's fuel balance will continue to improve. The share of the oil and gas, the most economic types of fuel, in the total fuel production will grow from 52 per cent in 1965 to 60 per cent in 1970.

The new five-year plan envisages high development rates for the chemical industry. The production of fertilisers,

* *Kommunist*, No. 7, 1966, p. 27.

man-made fibre, synthetic resins, plastics, synthetic rubber and other synthetic goods will increase most rapidly.

Machine-building will concentrate its efforts on the rapid growth of equipment for the power, metallurgical, chemical, oil, electronic and radio-engineering industries. There will be a considerable increase in the production of farming machines and motor cars. The output of lorries will rise by 60-70 per cent, of passenger cars by close on 300 per cent.

The development of group B industries is also forging ahead. The average yearly growth in the production of light industry products has been set at 110 per cent. Between 1966 and 1970 the output of the food industry will grow by 40 per cent. By the end of the five-year plan period the output of the basic group B industries will reach the following figures:

	1970
Textiles of all type (000 million sq metres)	9.5-9.6
Knitwear (million pcs)	1,650-1,750
Leather footwear (million pairs)	610-630
Meat (from state resources) (million tons)	5.9-6.2
Fish catch (million tons)	8.5-9
Butter (from state resources) (thous. tons)	1,160
Granulated beet sugar, million tons	9.8-10
Educational, recreational and household goods (000 million rubles)	15.5-16.5

The increase in the output of consumer goods depends not only on the technical re-equipment of group B enterprises and the building of new factories, but also on the supply of the food and other light industries with raw materials. The development of chemistry will effect important qualitative changes in the structure of the raw material basis of group B. Yet the organic raw materials being supplied by agriculture continue to be decisive for the development of the production of essential goods.

The main task facing agriculture in the new five-year

plan is to raise the output of crop and animal farming products, to ensure high and stable growth rates.

Basic Targets of the Five-Year Plan for 1966-70 in the Agricultural Field

	Average yearly output	
	1961-65	1966-70
Grain (million tons)	130.2	167
Beet sugar " "	59	80
Cotton " "	5	5.6-6
Potatoes " "	81	100
Meat " "	9.3	11
Milk " "	65	78
Eggs (000 million pcs)	29	34

This considerable growth in agricultural output is ensured by the development of the material and technical basis. During the five-year plan period centralised capital investments in agriculture will be raised to 41,000 million rubles. It will be used to supply agriculture with much more tractors, combine harvesters, lorries, fertilisers, fuel, etc., and for construction for production purposes. The electrification of collective and state farms will be extended.

All branches of the economy will be rapidly developed during 1966-70. The total volume of capital investments from all sources will amount to about 310,000 million rubles, this sum exceeding the volume of capital construction in the preceding quinquennium by 50 per cent. The distribution of capital investments among the various branches of industry has been effected in accordance with the plan's basic tasks. Out of the total volume of capital investments:

152,000 million rubles are earmarked for the development of industry, transport and communications;

71,000 million rubles for construction for production purposes and the acquisition of equipment for agriculture;

75,000 million rubles for the construction of housing, communal services, amenities and cultural establishments.

A set of interconnected measures is intended to raise the effectiveness of capital investments—a task of enormous economic importance. The new five-year plan envisages the channelling of capital investments primarily for the completion of projects already under construction. This will accelerate the introduction of productive capacities, housing and amenities.

The living standard of the population will rise considerably during the quinquennium. This will be based on the steady development at a high rate of all branches of material production. The 23rd C.P.S.U. Congress emphasised that in the new five-year plan the Party will take steps to accelerate the rise in the people's welfare. The growth rates of the population's real income, the retail trade turnover, services and other components of the people's living standard.

Rise in the Living Standard of the Soviet People

	Increment in 1961-65 per cent	Increment in 1966-70
Real per capita income	20	about 30
Volume of retail trade turnover . .	34	43.5
Turnover of public catering establishments	35	" 50
Services	90	" 150

The decisive link in raising the living standard of the population during the planned period is the increase in the remuneration (wages) of factory and office workers and of the earnings of collective farmers from the commonly-owned sector. The benefits accruing to the population from public funds will also increase. The general volume of grants and privileges out of these funds will grow by no less than 40 per cent. These funds will help to improve the pension scheme, public education and the maintenance of children in children's establishments, improve health and cultural and other services to the urban and rural population.

The new Soviet five-year plan also envisages a strengthening of economic and all other forms of co-operation

between the fraternal socialist countries. The Soviet Union will expand its foreign trade with the socialist countries and the co-operation with them in the development of science and technology. The Directives of the 23rd C.P.S.U. Congress on the Five-Year Plan provide for the fulfilment of the Soviet Union's obligations assumed according to long-term trade agreements with the socialist countries. The Directives consider the striving of the socialist countries for the further development of specialisation and the combination of production. Measures are also being taken to improve the structure of Soviet imports and exports.

Current plans are drawn up in accordance with the basic targets of the five-year plan. A case in point is the plan for 1966-67 which was approved by the Supreme Soviet of the U.S.S.R. in January 1966.

CHAPTER IV

ORGANISATION OF PLANNING

The organisation of the economy, in other words the methods according to which labour and production are organised, the scale assumed by that organisation, the form of the links between enterprises, etc., depends on the mode of production and is therefore independent of subjective factors. The characteristics of Soviet economic organisation and economic planning (planning being a *sine qua non* of Soviet economy), are products of large-scale production and its socialisation along socialist lines, and were conditioned by the emergence and development of two forms of socialist property. The organisation of planning enables the state to direct economic development and helps the masses to participate in planning.

Management is an evolutionary process and systems of economic management are not permanent features of the obtaining modes of production. They are continuously tested by economic practice and must be improved by society as the mode of production develops.

Democratic centralism is the basic principle of socialist economic management. The relation of centralisation and decentralisation in economic management depends largely on the level attained by the productive forces at any given stage in the socialist society's development, the concentration of production, the role played by state property in the economy, and the maturity of socialist production relations.

The role of centralised management increased during the transition period from capitalism to socialism and also

during the Great Patriotic War when non-economic methods for the management of the economy had to be introduced on a large scale. In conditions of peaceful socialist development centralisation is harmoniously combined with decentralisation. Large-scale socialist economy must be directed from a single centre, but at the same time room must be left for the broad participation of the masses in the management of the country's economy. The present tendency is to expand the people's initiative, give them greater rights within the framework of a single plan, handed down by the central authority to regional bodies of economic management, and to enlist their help in solving questions connected with regional economy.

The September 1965 Plenary Meeting of the Party Central Committee and the Session of the U.S.S.R. Supreme Soviet held in October 1965, adopted a number of important decisions to improve the management of industry and economic planning, and strengthen economic incentives to increase industrial output. It was noted that in modern conditions economic plans must provide for the progress of science and engineering and for the speedy introduction of the fruits of that progress. Planned targets must be based on realistic and objective calculations. It was emphasised that planning should stem from the economic laws of socialism and consciously implemented to ensure proportionality in the development of the economy and thereby obtain the greatest possible volume of industrial output with the lowest possible outlay. It was also found expedient to manage industry according to the branch principle, that is, the management would be effected by relevant ministries. The new system of management and planning reinforces centralised state planning but at the same time expands the economic autonomy of enterprises and boosts methods of economic management by using such levers as profit, price, bonuses and credit.

In our study of the organisation of Soviet planning we shall first trace how the present system of planning bodies was shaped. Next we shall give a short summary of the main stages in the drafting and implementation of the national economic plan, and finally, show how the masses participate in economic planning.

System of Soviet Planning Bodies

The system of bodies concerned with economic planning and management now functioning in the Soviet Union is based on the principle of democratic centralism, as laid down by the tasks of communist construction at the present stage and the prevailing state structure.

The present system of planning bodies has been developed over the past decades. It evolved from the socialist revolution and a study of the activities of the system from its inception to the present day is an important part of any serious survey of socialist construction and the history and theory of economic planning. It is regrettable that no history of the emergence and development of Gosplan and the other planning bodies has as yet been compiled. Gosplan was founded by Lenin who himself drew up the main items in Gosplan's first statutes, named the people he thought advisable to include in the staff and outlined its entire programme. The first statutes, laying down Gosplan's rights and obligations, were signed by Lenin on February 22, 1921. The principal items were:

"1. The General Planning Commission set up under the Council of Labour and Defence is charged with working out a single national economic plan on the basis of the electrification plan approved by the 8th Congress of Soviets, and with the general supervision of its implementation.

"High priority economic tasks to be implemented in the immediate future, particularly those scheduled for 1921, shall be worked out in great detail by the General Planning Commission or its Subcommittee, and take full account of the prevailing economic conditions.

"2. The State General Planning Commission is charged with a) the working out of a single national economic plan and with devising ways and means for its implementation; b) the examination of the production programmes and projects of the various departments and regional (economic) organisations throughout the economy and their co-ordination with the national economic plan; also the establishment of priorities for planned projects; c) the working out of measures on a national scale to organise the necessary research for implementing the national economic plan, and also to select and train the necessary

personnel; d) the working out of measures to disseminate among the population information about the economic plan, about the methods by which it will be implemented and about the forms the organisation of labour will assume."

In June 1922 some of the items in the "Statutes" were given in greater detail: the State Planning Commission was charged with working out the production plan for state economy and also the plan for the regulation of the whole national economy. In connection with the setting up of departmental and lower level planning bodies it was decreed that Gosplan work in conjunction with the planning commissions of the People's Commissariats and regional planning commissions.

During its first years, Gosplan incorporated the following sections and subcommissions: 1) the subcommission for assignments planned for the next years; 2) the power industry section; 3) agricultural section; 4) industrial section; 5) transport section; 6) subcommission for accounting, the distribution of material resources and the organisation of labour; 7) subcommission for foreign trade and concessions.

This shows that the internal subdivision of Gosplan was based on the branch system. The number and naming of the subdivisions changed in later years, but the principal task of covering all economic problems as fully as possible remained unchanged, and the internal organisation of Gosplan was at all times subordinated to this principle.

Gosplan was established at the same time as the New Economic Policy and at a time when the need for economic research and for plans based on this research had become vital. "It is not a historical coincidence," Krzhizhanovsky said, "that the famous switchover from surplus requisitioning to tax in kind, with its free 'local trade', coincides with the founding of Gosplan." The new body was assigned a major role in restoring the economy and in ousting capitalist elements.

The order of the Council of People's Commissars decreeing the transition to NEP said: "In connection with the change in economic policy Gosplan is entrusted with the urgent and highly responsible task of working out the general economic plan and co-ordinating the interests of

industry with those of agriculture, transport, food supply, etc."

While Gosplan was charged with the solution of general and long-term economic problems, it was also expected to keep up with current economic requirements. From the moment Gosplan was founded Lenin demanded that it keep well informed about the requirements of everyday life, and that it deal with these requirements without delay. Having acquainted himself with Krzhizhanovsky's speech to be read at the meeting called in connection with the founding of Gosplan, Lenin wrote to the author:

"I return your speech.

"Its main defect: too much about electrification, too little about *current* economic plans.

"The main emphasis is not laid where it should be.

"When I had before me the communist 'wiseheads' who had not read the book *The Electrification Plan*, and had not understood its importance and were chattering and writing nonsense about the plan in general, I had to push their noses into this book, because there is no other serious plan and there cannot be.

"If I had before me the people who *wrote* that book, I should push their *noses* not into the book but *away from it*—into the problems of *current* economic plans." He then goes on to propose: "Immediately, with all its strength, set about the *current* economic plans.

"Fuel *today*. For 1921. Now, this spring.

"The gathering of refuse, of scrap, of dead materials. Making use of them *for the purpose* of exchange for grain.

And the like.

"This is what 'their' noses have to be pushed into. This is what they should be set to work at. Now. Today.

"1-2 subcommissions on electrification.

"9-8 subcommissions on current economic plans. That is how the forces should be allocated for the year 1921."*

Lenin added that to supervise the work of enterprises unremittingly it would be necessary to make 70 per cent of the members of Gosplan work 14 hours a day.

* Lenin, *Collected Works*, Vol. 35, pp. 480-81.

"To supervise unremittingly," Lenin says, "means *answering* with your head for the rational consumption of fuel and grain, for the maximum stocking of the one and the other, for the maximum deliveries, for economising fuel (in industry, on the railways, etc.), for economising food (feed *only* good workers), for increasing productivity of labour, etc."*

From the moment of its inception supervision became one of Gosplan's most important functions. Being a general economic body, Gosplan was able to observe the whole process of reproduction, and acted as a sort of sentry dog for the proletarian state. A few days after the statutes of Gosplan were signed Lenin wrote to Krzhizhanovsky:

"I suggest that you think over the following plan (I consider it most important): to oblige *a few persons*, members of the *General Planning Commission*, systematically to present...*reports* and *articles* on the fulfilment by various departments (and by various gubernias, uyezds, groups of factories, individual factories, etc.) of current economic plans and on the comparison of this fulfilment with various years and for printing in *Ekonomicheskaya Zhizn*. (I consider it most important that Larin without fail, and also Sereda, Popov, Strumilin, should be *formally* obliged to follow with the greatest attention the facts and figures of the *real* fulfilment of our economic plans, and should *print* regular notes in *Ekonomicheskaya Zhizn* for public criticism and checking. *Two* or *three* specialists could also be set to work on this. It is essential that each should answer individually for the study and the checking; and that on each part of this work there should be *two* persons, independent of one another, for mutual checking and for testing various methods of analysis, summarising, etc.).

"Think about all this and let's have a talk *more than once* after your arrival."**

In May 1921 Lenin gave the following directives:

"I think it is necessary for the State Planning Commission to work out two things:

(1) through the statistical subcommission, to draw up a kind of index-number.

* Lenin, *Collected Works*, Vol. 32, p. 498.

** Lenin, *Collected Works*, Vol. 35, pp. 477-78.

A monthly summary of the chief data of our economic life (figures and a curve). Approximately:

Output of fuel
" of iron.
" of ore

The main data about other branches of industry:

% of workers engaged in production;
% under-fulfilment of sowing plans;
state of agricultural production;
% of locomotives out of action;
absolute number of pood-versts;
timber, wood fuel, etc.;
supplies of foodstuffs, etc.;
electrification likewise

(in each case a comparison with the previous year and with pre-war).

Without this we shall not have a survey of economic life.

This is one of the fundamentals for the work of the State Planning Commission.

(2) A subcommission of *economic* statistics.

The Central Statistical Board should be made into an organisation that does analysis for us, *current*, not "scientific" analysis. For example:

How many superfluous people fed?

How many superfluous factories?

How should raw materials be redistributed? And labour-power?

The economic work of the army?

Statisticians must be our *practical assistants*, not engage in scholastics.*

"The State Planning Commission stands somewhat apart from our legislative institutions, although, as a body of experienced people, experts, representatives of science and technology, it is actually in a better position to form a correct judgement of affairs.

However, we have so far proceeded from the principle that the State Planning Commission must provide the state with critically analysed material and the state institutions must decide state matters. I think that in the present situa-

* Lenin, *Collected Works*, Vol. 35, pp. 497-98.

tion, when affairs of state have become unusually complicated, when it is necessary time and again to settle questions of which some require the expert opinion of the members of the State Planning Commission and some do not, and, what is more, to settle matters which need the expert opinion of the State Planning Commission on some points but not on others—I think that we must now take a step towards extending the competence of the State Planning Commission."*

Lenin's directives remain, to this very day, of vital importance to the organisation of Soviet economic planning.

When the Union of Soviet Socialist Republics was formed in 1922, Gosplan of the R.S.F.S.R. was reorganised into the State Planning Commission of the U.S.S.R. Council of Labour and Defence. The new statutes of this commission, approved on August 23, 1923, did not introduce anything fundamentally new in the organisation of planning but stressed again the importance of the tasks entrusted to the country's single planning body. The statutes were repeatedly changed (in 1935, 1936, 1937 and 1938, for example) but the guiding principles remained untouched.

In connection with the qualitative change in the Soviet economy and the fresh tasks of socialist construction, new statutes for the U.S.S.R. Gosplan were adopted on March 21, 1941. According to the new statutes, U.S.S.R. Gosplan was assigned the following functions: 1) to draft and submit for government approval economic long-term, yearly, quarterly and monthly plans; 2) to submit conclusions on plans drawn up by departments and republics; 3) to verify the execution of approved plans; 4) to work on various economic problems under government instructions and on its own initiative; 5) to direct socialist accounting.

The statutes declared that Gosplan's main task was to ensure proper proportions in the development of the different branches and to take measures to prevent the emergence of disproportions. The plan, the statutes pointed out, should co-ordinate the work of associated branches of the extractive and manufacturing industries, agriculture and

* Lenin, *Collected Works*, Vol. 36, p. 598.

industry, transport and the national economy in general. They should also co-ordinate the growth of production with that of consumption, the financing of production with material supplies, provide for the most efficient distribution of enterprises and establish the necessary proportions between the various regions.

Trusting in Gosplan's twenty years of experience the new statutes extended the scientific functions of the country's single planning centre. In the post-war years additional changes were made in the statutes in connection with the organisation of the State Supply Department (February 1948), and the State Economic Commission (May 1955), which took over current planning. The changes in the statutes were due also to the fact that the Central Statistical Board of Gosplan had become an independent body (1948). The State Supply Department (1948-53) and the State Economic Commission (1955-57) failed to live up to expectations and were soon disbanded.

Planning is guided by the Supreme Soviet of the U.S.S.R. and the Government (the U.S.S.R. Council of Ministers) that it forms. The Supreme Soviet adopts the economic plan, approves the unified state budget, lays down the principles according to which enterprises in all economic branches are to be managed, and directs the money and credit systems. The U.S.S.R. Council of Ministers takes steps to implement the economic plan and the state budget and to strengthen the finance and credit systems. It co-ordinates and directs the work of the committees and ministries in charge of the various branches of the economy and culture and the activities of the Union republican Councils of Ministers concerned with the management of the economic and cultural life of the fifteen republics of the Soviet Union.

The U.S.S.R. Gosplan is the country's principal planning body and is charged with the following tasks: 1) to draft state plans in keeping with the Programme of the C.P.S.U., Communist Party and Government directives, basing them on the plans drawn up by the Union republics; 2) to improve planning by consciously applying the economic laws of socialism and by drawing on the experience of communist construction. The plans drafted by Gosplan must ensure the rapid building of the material and technical

basis of communism and the attainment of the highest standard of living in the world. They must also provide for the proportional development of the economy, the rapid advance of the progressive branches of industry and the most effective distribution of productive forces. Economic plans must provide for the most effective use of all economic resources and for an increase in the productivity of social labour. Gosplan draws up balances and plans for the distribution of key industrial and agricultural products, co-ordinates the plans of the Soviet Union with those of the other socialist countries, draws up itemised lists of key construction projects and in conjunction with interested organisations submits recommendations to improve the system of prices and tariffs. Gosplan checks on the progress made in the fulfilment of the economic plans and takes measures to forestall disproportions in economic development.

Gosplan is an all-Union body controlling the work of Union republican Gosplans.

There is a special state committee in charge of material and technical supplies. Its principal task is to implement the plans for the supply of raw materials, fuel, plant and equipment, timber and building materials.

The various branches of industry are managed by all-Union and Union republican ministries. These draft plans for the development of their industries supervise the fulfilment of plans and direct planning at the enterprise level.

The Union republican Gosplans draft republican development plans for all the industries under Union republican and republican administration, and also draw up recommendations on the draft production plans of enterprises subordinated to all-Union ministries and situated on the territory of their republic. This ensures proper territorial planning, even though economic management is based on a division into branches, and allows a fuller utilisation of local resources.

The Gosplans of Autonomous republics are subordinated to the Councils of Ministers of the Autonomous republics, and regional planning committees to the regional executive committees of the Soviets. The Autonomous republican Gosplans and the regional planning committees draw up

plans for industry and transport subordinated to the local authorities, for agriculture, social and cultural development, housing and municipal construction. They ensure the rational use of local building materials, fuels, factory waste and supervise housing and municipal construction, etc. The Autonomous republican and regional planning committees base their own summary plans on plans drafted by district and town planning bodies. The planning bodies of the district executive committees and town executive committees draft the plans for enterprises under their control and check that they are implemented.

All central and local state bodies (U.S.S.R. Council of Ministers, Union republican Councils of Ministers, regional [territorial] executive committees, Autonomous republican Councils of Ministers, district and town executive committees) have their own planning centres (U.S.S.R. Gosplan, Union republican Gosplans, regional [territorial] planning committees, Autonomous republican Gosplan, district [town] planning committees), Ministries and committees, too, play an important part in this planning.

The Autonomous republican Gosplans and the regional (territorial) planning committees are subordinated to the Union republican Gosplans and form with them and the planning bodies of the ministries and departments and the district (town)* planning committees, a single system of republican planning bodies. Gosplan, the Union republican Gosplans and other planning committees are interlinked in that they all have to complete draft plans by a stipulated time and use the same methodological approach in drafting them. The higher planning bodies check the draft plans of the lower bodies for correspondence with government directives.

There are also planning departments in factories, construction sites, state farms, transport and trading enterprises. These departments draw up plans assisted by the workers and specialists in the relevant enterprises. Although their economic activities are guided by ministerial targets, they only determine the principal economic trends (total volume of sold output, principal types of output in physical terms, total wage fund, profit as a whole and for particular kinds of output, payments to the budget and appropriations from the budget, total volume of centralised capital

investments and introduction of productive capacities in physical terms, key targets for the introduction of new equipment and amounts of raw materials and equipment delivered), and the enterprises take independent decisions on production and economic problems. They themselves work out their technical output and financial plan which is approved by the director of the enterprise.

In collective farms, the plans drafted by the elected board in conformity with prevailing legislation are approved at a general meeting of the collective farmers.

Trade unions are playing an ever increasing role in economic planning. The lower level trade union committees participate in drafting the plans of enterprises, listen to reports on the progress made in fulfilling them and submit recommendations for improving their work to the higher economic and government agencies. Standing works conferences are one of the principal ways of enlisting factory and office workers in the management of production in general, and planning, in particular.

Enormous support is given to the planning bodies by the U.S.S.R. Central Statistical Board. There can be no planning without accounting and since under socialism enterprises are public property, nothing hinders accounting on a national scale. The U.S.S.R. Central Statistical Board is a powerful body including a network of computer centres and is able to submit a complete summary on the output of key products within three days.

The further development of planning depends also on the development and improvement of economic accounting and statistics. Economic growth, the greater need for exact accounts and for a speedier return of data and the need to make accounting less expensive, make it imperative to improve accounting. The following steps outline the ways in which this can be done—improvement of the centralised accounting and statistical system, the concentration of all the country's accounting and statistics into a single body, the setting up of a network of centres, equipped with highly efficient computers and up-to-date technical means for the automatic reception and transmission of accounting data. The processing and summation of all data submitted by industrial, agricultural, building, transport, trading and cultural establishments should be carried out by

computer centres, which could then supply all interested organisations with accounting and statistical data. Accounting forms should be simplified and made suitable for computers.

The basic principles of Soviet planning have successfully withstood the test of time. They are used in all socialist countries, although they are naturally adapted to meet the special requirements of each country's particular economic management and planning.

In all socialist countries the working people participate actively in planning and economic management. Trade unions are assigned a major role in this respect. In some countries special ways of enlisting the working people in production management are employed. For instance, in the Polish People's Republic there are bodies of workers' self-administration which are set up at enterprises according to the will of the majority of the working people. The supreme body of this self-administration is the conference of the workers' self-administration, incorporating the factory committee of the Polish United Workers' Party, the trade union committee and the workers' council (the executive body of the workers' self-administration). The director of the enterprise takes part in the conference and if they do not run counter to the state economic plan and the laws of the country, implements the decisions of the workers' self-administration.

In all socialist countries a great deal of attention is paid to providing incentives for workers to raise labour productivity, increase profits and introduce technical improvements. Part of the profits goes to form various funds which are used to modernise and repair equipment, supplement the working capital, finance some types of capital construction (especially housing and municipal development), and to bonuses to workers, etc. In the Hungarian People's Republic workers receive a share of any profits over and above the planned targets. The sum paid out during the year must not, however, exceed the monthly wage fund. Profits are distributed in direct proportion to wages and are taking into account the length of time the recipient has been employed at the enterprise.

How the Drafting and Execution of the Economic Plan Is Organised

Before it assumed its present form, the system and organisation of economic planning underwent many improvements. At some periods current planning predominated, at others the accent was on long-term planning, but most of the time there existed a rational correlation of the two types. By the end of the 1920s certain experience had been amassed in the drafting of the general plan covering 10-15 years, a long-term plan for five years and yearly plans. Gosplan therefore proposed that a system of planning be adopted in which the general plan would outline ways of achieving the main tasks, the five-year plan would form a part of the general plan and elaborate construction and operational plans in greater detail, while the yearly plans would itemise the five-year programme and facilitate operational economic management.

The present organisation of economic planning in the Soviet Union conforms to the current tasks of planning and the new structure of economic management. The principal features of that organisation may be summarised as follows: (I) the abolition of excessive centralisation in planning, and the improvement of the remaining centralised planning; (II) the expansion of the role assigned to republican plans and the plans of economic regions and enterprises; (III) the increase in importance of long-term plans; (IV) government rejection of detailed planning for collective-farm produce, while maintaining the planning of state procurement of agricultural products.

The Party Central Committee and the U.S.S.R. Council of Ministers demanded on October 4, 1965, that the role of long-term plans be heightened so as to ensure the uninterrupted growth and improvement of production, the wide introduction of science and engineering into production, and the achievement of greater proportionality between economic branches and the various regions. The decision stated that the five-year plan (the key tasks being broken down into annual plans) was the principal form of state economic planning.

Long-term plans are of enormous importance in mobilising the people. The public are shown the sweeping tasks of

communist construction, and the ways by which these tasks will be achieved; they see where the needed resources are to come from and this mobilises the people for new heroic efforts. Long-term plans lay down terms for the completion of important building projects and reconstruction jobs. This helps determine the size of the necessary resources and thus facilitate their most rational construction.

The increasing importance of long-term planning stems from the strengthening of socialism and the new forms of economic management and planning. The Soviet Union's socialist economy now develops on its own economic basis. The period of the revolutionary reorganisation of the small-scale commodity producing sector, the struggle against the capitalist classes and the changes in the dynamics of the economy have become things of the past. This means that long-term plans are now able to map out trends of development far more precisely than they could before.

Long-term plans outline the tasks of enterprises for a number of years in advance, and enable them to improve the organisation of their work by taking consistent measures for the expansion of production, by introducing new equipment and by raising labour productivity and lowering costs.

The organisation of economic planning, as it is practised at present, can be divided into the following stages:

1. Drafting of the plan in conformity with the Communist Party and the Soviet Government directives.
2. Endorsement of the plan by the relevant government bodies.
3. Organisation of and control over the execution of the approved plan.

Control figures are drawn up before the long-term plan is drafted. These figures determine the principal trends and general scale of economic development during the period covered by the plan and are particularly important for capital construction. The volume of capital investments, building and assembly work must be determined for the whole period during which the projects will be under construction, and financial and material resources must tally with established quotas and time limits. In distributing capital investments, the planning authorities generally

lay aside enough funds and materials to complete projects already under construction—only when this has been done are the requirements of new projects considered. This approach to the planning of capital construction helps to focus resources and efforts on high priority projects and accelerates building.

When the control figures have been endorsed by the Central Committee of the C.P.S.U. and the U.S.S.R. Council of Ministers they are published to enable enterprises, construction sites, local Soviets, ministries, departments and republican Gosplans to use them as a basis for their plans. By limiting capital investments, stipulating the principal types of raw materials and equipment to be used, establishing the level for the output of key products and handing down targets for the increase in labour productivity and the lowering of costs, the control figures promote a rational business-like approach to the drafting of plans, check any possible "project mania", eliminate unnecessary work and help the local planning bodies utilise internal reserves, essential for the fulfilment of the planned assignments.

These plans, drafted on the basis of the control figures, are then discussed by the workers and become valid after they have been endorsed by the ministries.

Ministries (departments) of the U.S.S.R. and of the Union republics and local executive committees, draw up summary plans for all enterprises subordinated to the ministry, region or district on the basis of the plans they receive from individual enterprises.

The Council of Ministers of the Union republic then checks these plans for correspondence with Government directives and endorses summary plans for the economic development of their republic.

In drawing up the national economic plan, U.S.S.R. Gosplan takes account of plans submitted by all levels.

The production plan for the coming year is endorsed by the directive bodies in ample time to forward it to enterprises, construction sites and collective farms.

The most responsible stage in planning is the organisation of its execution, which begins when the plan is drawn up and approved. State management of the economy can be carried out only on the basis of plans which have been systematically tested under practical conditions. "... The

economists, the literati, and the statisticians," Lenin said, "should stop their twaddle about the plan in general, and get on with a detailed study of the implementation of our plans, our mistakes in this practical business, and ways of correcting them. Otherwise we shall have to grope our way long. . . . But the efficient economist, instead of penning empty theses, will get down to a study of the facts and figures, and analyse our own practical experience. He will pin-point the mistakes and suggest a remedy. This kind of study will suggest to the efficient administrator the transfers, alterations of records, recasting of the machinery, etc., to be proposed or put through."*

The organisation and verification of the plan's implementation was always considered a matter of first rank importance.

Socialist ownership of the means of production enables the Soviet state to implement the economic plan with maximum efficiency. The state is in full control of the land, a multitude of factories, means of transport, and the raw material resources for the production of the stipulated volume of articles. It controls all the commodities, housing, establishments for the training of skilled workers and specialists that enable the state to supply the economy with the necessary labour to fulfil planned targets. The state finances construction sites and operating enterprises in accordance with the financial and credit plan.

To organise the execution of the plan, the Soviet Government uses all economic levers the single economic mechanism placed at its disposal to solve the concrete tasks of economic development—strengthens economic accounting, manoeuvres prices, distributes and redistributes credit resources, uses the profits made by enterprises, etc.

To these ends the Communist Party and the Soviet Government also mobilise millions of people to help in this great task, explain the immediate tasks of economic construction and provide material incentives to interest them in fulfilling planned targets. In organising labour and distribution according to the socialist principle—from each according to his ability, to each according to the quantity and quality of his work—the state is able to mobilise millions

of people for the execution of the plan. As communism approaches, distribution according to requirements and moral stimuli for raising labour productivity are acquiring greater importance.

The organisation of the execution of the plan is a daily task effected by the economic, administrative, educational, propaganda and scientific bodies, no matter whether these are Party, state or public organisations. Planning agencies occupy a special place in these activities. They systematically check on the progress made in implementing the plans and report back to the administrative Party and Government bodies, so as to enable them to take timely steps to eliminate any hitches, discover means to overfulfil the plans and disseminate the experience of advanced workers.

Mass Participation in Planning

Enormous importance is attached to the participation of the masses in drafting and implementing plans. In characterising the nature of socialist planning and in explaining the successes of planned economy, Lenin always emphasised the role played by the masses in socialist planning and in a successful planned economy.

He also considered the masses the principal force of further progress. He taught that to be successful a socialist plan must rely on the experience of the masses and must have its roots in the very heart of the working people.

The Seven-Year Plan is an example of a plan drafted and shaped by the masses. More than 968,000 meetings were held in enterprises, collective farms, institutions, educational establishments, etc., to discuss the draft control figures. More than 70 million people participated in these meetings and as many as 4,672,000 took the floor to express their views on the plan and to make suggestions for its improvement. In addition Party and administrative bodies and the press received over 650,000 letters and articles containing various proposals—more than 300,000 of which were published. The draft control figures were discussed in a business-like manner at regional and territorial Party conferences and at congresses of the Communist Parties in the Union republics.

* Lenin, *Collected Works*, Vol. 32, pp. 142, 143.

The Party uses the plan to ensure unity of purpose and action in the building of a new society. The planning activity of the Soviet state is reinforced by the enthusiasm of millions of working people who have not only assisted in drawing up the plans but who then by means of socialist emulation, help to implement them. The Party also studies the people's experience and uses it to accelerate economic growth.

To understand how socialist economic management is organised and the ways by which it will grow into a truly communist organisation of the economy on the basis of public self-administration, a thorough study must be made of the participation of the masses in the sphere of planning.

From the earliest days of Soviet power, all economic and political measures relied on mass action. Workers' control and committees of poor peasants enlisted the help of tens of millions of workers and peasants in the administration of their country. The first examples of communist labour were the *subbotniks* described by Lenin as the real beginning of communism, "with the support of the proletarian state power, the shoots of communism will not wither; they will grow and blossom into complete communism".* The *subbotniks* were an expression of the revolutionary awakening of the masses.

Lenin considered the independent action of the masses a guarantee that the GOELRO plan would be fulfilled ahead of time. He said: "We must avail ourselves of the progress of science and practice, and must steadfastly strive to get the plan fulfilled in the localities ahead of schedule, so that the masses will see that the long period separating us from the complete restoration of industry can be reduced in practice. It depends on us. Let us improve our methods in every workshop, in every railway depot, in every sphere, and we shall shorten this period..."

"Economic plans must be carried out in accordance with a definite programme, and the increasing fulfilment of this programme must be noted and encouraged. The masses must not only realise, but also feel that the shortening of

* Lenin, *Collected Works*, Vol. 29, p. 431.

the period of hunger, cold and poverty depends entirely upon how quickly they fulfil our economic plans."*

As Lenin predicted, the creative activity of the people aimed at establishing socialist conditions in the economy and life in general and their voluntary participation in raising labour productivity, which first expressed itself in the early communist *subbotniks*, did not wither away but grew into the socialist emulation which embraces millions of people.

Socialist emulation was created by the Komsomol and the press early in 1929 after the publication of an article by Lenin entitled "How to Organise Competition". By the time of the 16th Party Conference the enormous importance of emulation and shock-work movements was obvious to all. The conference declared that "Soviet workers are acting in keeping with the best heroic traditions of the Russian working class and are founding new traditions. Lenin's idea of organising emulation on socialist principles is being translated into reality..."

Teams of shock workers at factories and other institutions are the successors of those workers who founded the now traditional communist *subbotniks*.

Emulation and the five-year plan, the conference pointed out, are inseparably linked.

Developing this theory of the close links between emulation and planning, the 16th Party Conference adopted the resolution "On the Tasks of the Trade Unions in the Reconstruction Period", which said that "the shock-worker team is the first step in enlisting workers in production management".

At that time the drawing up of "counter-plans" was one of the most important means of participation taken by workers, collective farmers and the intelligentsia in economic management. State bodies (chief administrations, trusts) drew up draft plans, which determined the volume of raw materials, fuel, plant, and funds for each enterprise, and stipulated the amount, quality and range of its output and the level of labour productivity to be achieved. Counter-planning aimed at ensuring a more effective utilisation of the funds allocated to the enterprise, specified targets

* Lenin, *Collected Works*, Vol. 31, p. 511.

on labour productivity and the employment of equipment and investigated the potentialities for raising the standards of output and the utilisation of equipment.

The draft plan of state bodies was thus subjected to an expert appraisal by the workers, and when finally approved became a state target for the factory.

Counter-planning was applied not only in industry but also in agriculture where it aimed at increasing sown areas, raising yields and the better use of equipment.

Socialist emulation and counter-planning thus, figuratively speaking, created a single front in planning, extending from the work-bench to Gosplan. In May 1931 Kuibyshev said: "Counter-planning, now a powerful movement, is one of the most active means taken by the working class to fulfil and even overfulfil the plan, to guarantee maximum economy and to mobilise all internal industrial resources.

"The experience gained between 1930 and 1931 in drawing up counter output and financial plans showed in the high political and economic maturity of the working class, whose yearly and quarterly plans were no worse than those of the planning bodies of associations, trusts and even of the Gosplans."

The example below, taken from the practice of the Moscow Motor Works (1932), demonstrates the effectiveness of counter-planning.

Cost of Articles
(rubles)

	Draft plan	Counter plan	Economy
Materials	2,070	2,050	20
Semi-finished goods	1,040	1,040	—
Wages	490	445	45
Workshop expenditure	2,100	2,010	90
General factory expenditure	525	505	20
Guarantee	100	100	—
Influence of reserve stocks	1,050	1,050	—
Total	7,375	7,200	175

In terms of annual output the amount saved by this counter-plan was 8.5 million rubles.

Counter-planning was also of great political importance. "The participation of millions of workers in the drawing up of the plan..." Kuibyshev said, "is a guarantee that the plans correspond to the general Party line, that they are in the interests of the working class, and most important of all, that they will surely be fulfilled."

The technical, output and financial plans, the workers began to draft in 1932, was a new form of their participation in planning and was their answer to the Party's appeal to master new equipment and learn the economics of production. It was important because it promoted the participation of workers in solving the technical and economic problems which arise in planning the work of factories. The drawing up of technical, output and financial plans made counter-planning even more effective, for it was now based on a comprehensive knowledge of the equipment and the economy of production at the factories, and on the workers' mastery of new techniques.

In studying the experience of drafting technical, output and financial plans, S. M. Kirov came to the conclusion that the "technical, output and financial plan is exactly what we need to improve the management of enterprises and to assure the full use of all reserves. It is an example of genuine socialist organisation of labour and a genuine manifestation of the practice of socialism. Although the technical, output and financial plan is of enormous practical significance, it is no less important politically for it helps iron out the disparity between physical and mental labour, since the worker who actively participates in the planning of production could manage not only his lathe but the workshop and the factory as a whole."

The emulation which by 1934 had embraced 75 per cent of all industrial workers and improved living standards, engendered a new form of socialist emulation that became known as the Stakhanov movement.

The Plenary Meeting of the Party Central Committee held in December 1935 adopted the resolution "Problems of Industry and Transport in Connection with the Stakhanov Movement". This resolution pointed out that it was necessary "to use all the scientific knowledge and technical

experience of industry to do away with the underemployment of equipment. . . .

"Output standards must strictly correspond to the production potentialities of the workshop and the factory, taking into account the advanced production experience of the Stakhanovites. . . .

"The assistance of Stakhanovites should be enlisted in establishing new output standards at enterprises."

The Plenary Meeting of the Central Committee pointed out in what direction the Stakhanov movement should be developed in every industry. In engineering, for example, the movement should promote the better utilisation of metal, labour power and machine time and improve the quality of output. The resolution outlined the key problems in each industry which could be solved by the Stakhanovites.

During the first half of 1936 branch conferences, uniting heads of departments, engineering and technical personnel, and Stakhanovites, were held in all industries. Indices for the production capacity of workshops and machines were revised and output standards and new production plans were drawn up on the basis of the new industrial and railway standards.

The rapid growth of the emulation movement in pre-war years, which began to cover an increasing number of production problems, brought substantial changes in the organisation of factory planning. During the Great Patriotic War and the restoration period socialist emulation was of crucial importance to economic organisation. In 1946 about 80 per cent of all workers participated in the emulation and in 1950 it accounted for as much as 90 per cent. Various forms of inter-factory economic accounting were introduced to supplement and improve planning practice.

Between 1954 and 1962 emulation of workers in state farms, machine and tractor stations and among collective farmers became a major factor in raising socialist agriculture. In organising this emulation the Communist Party introduced more material stimuli to induce farmers to raise labour productivity, to supply agriculture with modern equipment, to improve farming skills and to introduce new methods of agricultural planning.

Socialist emulation was also of overriding importance in

fulfilling the 1959-65 Seven-Year Plan for the development of the U.S.S.R. economy.

A new form of active participation of the masses in communist construction was introduced in honour of the Twenty-First Party Congress—the teams of communist labour. In 1960, 7,750,000 factory and office workers competed for the honorary title of collective and shock worker of communist labour.

An appeal from the Party Central Committee to the All-Union Meeting of Communist Labour Teams and Shock Workers declared that this emulation combined the struggle for a higher labour productivity based on modern science and engineering with the education of a New Man. Members of communist labour teams should strive for perfection in work, study, morals and behaviour. The experience they gain will be one of the most important means of ironing out the differences between physical and mental labour.

The viability of communist labour teams is proved daily by new facts, particularly by the emulation for the right to be called a workshop or enterprise of communist labour. Many scientists, artists and actors volunteered to help members of communist labour teams widen their knowledge of science and culture.

At the end of 1963, over 26 million people were participating in the communist labour movement, and about 2,600 enterprises, over 50,000 workshops, departments and farms, and 400,000 teams have already been awarded the title of Communist Labour Collective.

Thanks to socialist emulation the development plans for the national economy were actually overfulfilled. The Fourth Five-Year Plan's targets for the increment of industrial output were overfulfilled by 17 per cent and those of the Fifth by nine per cent. This justifies the conclusion that no plan will ever be able to take all reserves and all potentialities into account. Moreover every well-drafted plan should stimulate the initiative of the people executing it. The overfulfilments mentioned above are natural, normal and progressive phenomena and not the results of miscalculations or other defects in planning.

In a planned economy emulation is based on the attainment of planned targets. The plan is the organiser of the

emulation, for it sets the targets every worker strives to achieve. On the other hand, emulation is a form of participation of the masses in economic planning. Every worker taking part in the emulation subjects the plan to a personal check and contributes to its execution and improvement. Participation of the masses in socialist planning is yet another of the ways in which the people contribute to the building of communist society.

Socialist emulation as a means of the active participation of working people in socialist construction has become an international phenomenon, in all the People's Democracies builders of socialism vie with each other for better results.

The nearer we approach communism, the more active and diverse becomes the participation of the working people in the management of production and in its improvement. The necessary prerequisites are created by the growth in the material welfare and cultural standards of the people, the shorter working day and the fact that labour becomes a prime need.

The further development of economic planning will rely on the ever wider participation of the working people in the drawing up and implementation of plans.

The 1965 Economic Reform and Planning

The September 1965 Plenum of the C.P.S.U. Central Committee adopted the important decision on the improvement of planning, industrial management and material stimulation. This decision marked the beginning of a vast economic reform in the U.S.S.R. It was prepared by all the preceding development of socialist economy and was directed at the fuller and deeper utilisation of the advantages inherent in the planned socialist economy. The basic aim of the economic reform was to make social production more effective and rapidly to raise on this basis the living standard of the Soviet people.

The economic reform opens up possibilities for enhancing the role of science in economic management. It thus creates favourable conditions for the development of production, for the building of the material and technical basis of communism.

The reform solves urgent problems of the Soviet Union's further economic development, which arose as a result of the rapid growth of production, and of accelerated technological progress. The increase in the effectiveness of social production on the basis of a growth in labour productivity has become the central problem. The rapid solution of this task calls for an improvement of planning, the granting of greater material incentives to the workers and the improvement of economic management. In other words, this means that planning and the methods of management must be made to comply with the tasks of the present stage of development, that the most important aspects and advantages of the socialist system of economy must be further developed.

The Communist Party bases the improvement of the forms and methods of planning on the economic laws of socialism. The Soviet Union's economic development is formed on the centralised planning of production, construction, technical progress, labour finances, etc. At the time some obsolescent forms and methods of management which no longer satisfy the requirements of the modern stage in the development of Soviet economy are being abolished.

The report of the C.P.S.U. Central Committee at the 23rd Congress emphasised that at the present stage the strengthening of centralised management in the U.S.S.R. is being combined with the development of the initiative and autonomy of enterprises. It is important to note that the same ideas underlie the economic reforms being implemented in other socialist countries. The 9th Congress of the Hungarian Socialist Workers' Party (November 1966) emphasised that the new economic mechanism being introduced in Hungary will raise the authority of the state bodies of the Hungarian People's Republic.

The current economic reform in the Soviet Union embodies the methods of planning and economic management recently worked out by the Communist Party. The Directives of the 23rd Congress set the task *"to improve the management of the country's economy through undeviating realisation of Party decisions concerning improvement of planning, economic stimulation of production, extension of the initiative and economic independence of enterprises,*

and the enhancement of the working people's material interest in the results of their labour".

The reform in planning and management embraces the whole system of planning and touches upon basic theoretical and practical questions pertaining to the drawing up and implementing of plans. The reform improves centralised planning, revives and strengthens the planning by branches, vests new important functions in the republics and regions, considerably expands the rights of enterprises in planning and other fields. The reform thus improves planning along the whole front, strengthens general state planning and extends the initiative of the enterprises in the field of planning.

The improvement in the organisation of industrial management is based on a combination of unified state planning with the cost accounting of enterprises, centralised branch management with the wide economic initiative of republican and local bodies, one-man management with the increased role of production collectives.

All these measures are based on Lenin's directions on the single economic plan, on the decisive role of planning based on the utilisation of the economic laws of socialism in the country's economic development.

The reform strengthens the planning of industry by branches, improves planning, furthers the development of the Union republican economies and makes the planning of the distribution of the productive forces more effective.

The implementation of the reform sharply raises the role of the U.S.S.R. State Planning Committee (Gosplan) and all planning bodies. They have to work hard to improve planning methodology, to optimise plans, to work out variants of computations for the plan with electronic computers so as to be able to choose the best. At the same time the establishment of national economic and intra-branch proportions and their economic justification is becoming all-important. The planning bodies must find the best ways to ensure high and stable rates for the development of Soviet economy, giving priority to the branches securing technical progress (chemistry, machine-building, the power industry, metallurgy), and also earmark the necessary resources for the abolition of disproportions arising in the national economy (the persistent lagging

behind of agriculture, the violation of the correct proportions between groups A and B, etc.*

The September 1965 Plenum of the C.P.S.U. Central Committee emphasised that the U.S.S.R. Gosplan should focus its attention on ensuring the correct economic proportions and raising the effectiveness of production. Under these conditions the further improvement of the balance method of planning acquires special importance. A leading role is assigned to the working out of the balance of the national income, balance of labour resources, balance of the cash incomes and expenditures of the population, the most important material balances, etc.

Under the new conditions long-term planning is also beginning to play a greater role. The experience of the Soviet Union's economic development demonstrates that *five-year plans are the best form of long-term planning*. Five years are an optimal term for the solution of many crucial economic tasks. It is also possible to make accurate computations for a five-year period.

This however does not mean that general plans for 10-15 years and longer are being ignored. General plans contain the principal directions to be taken by economic development and are landmarks for the working out of five-year plans.

The organic unity of long-term and current planning is of cardinal importance. It consists, primarily, in the breaking up of the five-year targets into yearly tasks. These tasks are defined in greater detail in the yearly plans, in accordance with the progress made by economic development, the disclosure of new resources and reserves, etc.

A splendid example of the unity of long-term and current planning is the 1966-70 Five-Year Plan and the economic plan for 1966—the first year of the quinquennium.

The Directives of the 23rd Congress of the C.P.S.U. on the Five-Year Plan for 1966-70 outline the main tasks of industrial development. These are to raise the efficiency of production and its technical level, to better its structure, to introduce systematically and rapidly technically new pro-

* For details see N. Baibakov. *Zadachi planirovaniya narodnogo khozaistva v novykh usloviyakh*. Pravda, October 29, 1965.

ducts in production. In accordance with these Directives it has been decided to ensure the priority development of the power, machine-building and chemical industries and of metallurgy, to improve intra-branch proportions, to raise the share of the economically more profitable types of output in the total output, to satisfy the social requirements at the lowest possible outlay.

Proceeding from these fundamental tasks of the five-year plan, the 1966 plan provides for a correlation in the development of industrial production that will ensure the priority growth of the progressive branches. Whereas all industrial output will grow by 6.7 per cent and the total output of group A by 6.9 per cent, the 1966 plan envisages the growth in the output of the oil and gas industry by 12.3 per cent, of the chemical industry by 12 per cent, of machine-building and metal-working by 9.1 per cent.

The improvement of planning by branches becomes particularly important. During the operation of economic councils (1957-65) a number of defects developed in branch planning. Only U.S.S.R. Gosplan was drawing up plans on a branch scale. Under the reform planning by branches is placed on a sound footing: it is being effected by the ministries, which are fully responsible for filling the requirements of the whole economy in a definite product. The ministries have the opportunity and are charged with the obligation to work out branch plans, which are to be based on a thorough study of requirements. These plans provide for a fuller utilisation of reserves and for the disclosure of new potentialities for the increase in the output of high quality products at the lowest possible production outlay.

The strengthening of branch planning presupposes an improvement in the territorial break-up of the national plan. An important part in this respect is assigned to the joint work of the Gosplans of Union republics, the planning bodies of regions and territories, and ministries. One of the key tasks in improving planning in the new conditions is the optimal combination of general state planning and the wide initiative of enterprises and their workers.

Through the system of general state planning the Communist Party and the Soviet Government conduct a unified policy in the field of technical progress, prices, labour, finance, etc. The formation of ministries is very

important in that respect, since it ensures the centralised management and planning of industry, the main branch of Soviet economy. But this strengthening of the centralisation in planning is fully compatible with the increased role and responsibility of local planning and economic bodies.

The formation of industrial ministries does not mean that the Union republics are dissociated from the industrial management and planning. A considerable portion of the factories are subordinated to republican ministries and local Soviets, and Union republics have been granted the right to consider the plans for the industrial development of branches being drawn up by all-Union ministries and departments and to submit recommendations on them to the U.S.S.R. Council of Ministers.

The reform also wrings major changes in the organisation of planning at the enterprise level. Formerly the annual plan of enterprises contained up to 500 indices, regulating its activities. Under these conditions enterprises were practically deprived of the possibility of working out their plans independently. Now this has changed radically.

The economic reform has created conditions for a fundamental improvement of production planning at the enterprise level. With a view to expanding the economic independence of enterprises the obligatory (endorsed) indices have been reduced considerably. The rights of enterprises have been extended on the basis of full cost accounting.

As the effectiveness of the work of enterprises and their resources grow, greater funds will be put at the disposal of the enterprise for the development of production and the payment of incentives to workers. Under the new conditions the main criteria of an enterprise's performance are: a) sold output, b) profits, c) fulfilment of targets for the delivery of the basic output. The remuneration of workers will depend not only on the results of their individual labour but also on the overall results of the operation of the enterprise as a whole.

The following plan indices are handed down to the enterprise by the superior organisation:

- volume of output to be sold;
- basic nomenclature of output;

wage fund;
sum of profits and level of profitability;
payments to the budget and allocations by the budget;
volume of centralised capital investments and introduction of production capacities and fixed assets;
basic tasks in introduction of new equipment;
material and technical supply indices.

All other indices of economic activity are planned by the enterprise itself and need not be endorsed by the superior bodies (trusts, etc.).

The new system of planning makes it possible to combine the independence and initiative of enterprises with centralised planning by the state.

Under the new system of planning every enterprise is interested in selling its output. This is achieved principally through replacement of the physical output index by the sold output index.*

This creates a direct link between production and consumption, stimulates the output of goods of the required quality and assortment, and makes enterprises attach greater importance to the thorough study of consumer demand.

Under the new conditions much closer links are formed between planning and market relations. Money-commodity forms were always used in Soviet economic planning, but under the new system a more intense and deeper use is made of value levers.

It should be emphasised, however, that the "plan and market" problem is a complex one and that to reveal it in all its complexity and diversity, a thorough study must be made. One should realise that different laws govern the market for consumer goods and the market for means of production, even though the links between them are extremely close. The consumer market and the market for capital goods exert different influences on economic development.

The economic reform has raised the significance of the index for the profit (level of profitability) of enterprises.

* This does not mean that the physical output index has been abolished. It has only been assigned its appropriate place and is now used in the accounting and planning of the branches of industry and of industry as a whole.

Lenin attached great importance to profit, emphasising that every enterprise should work profitably, should fully cover its expenditure out of its income and should profit society. Lenin considered profitability the most important principle of cost accounting. The Charter of the trust, endorsed by Lenin in 1921, stated that the trust is a state enterprise, set up with the aim of increasing profit.

It goes without saying that the profit of a socialist enterprise differs radically from capitalist profit. Under socialism profit is primarily an index of the effectiveness of production of an enterprise. The September Plenum of the Central Committee of the C.P.S.U. stressed that the setting of a profit target raises the importance of the production costs. This index should be assigned a special place in the technical, output and financial plan of the enterprise.

These directions of the September Plenum of the Central Committee of the C.P.S.U. are extremely important. It should be remembered that as the organic composition of production (the amount of available equipment) grows, as new equipment, often very expensive machines, is introduced, the rates of profit may tend to fall. But it would be wrong to draw on this basis alone the conclusion that the enterprise has begun to work worse than it did before. To appraise the work of an enterprise not according to the rate, but to the mass of profit would also be wrong, since in that case large enterprises would always have a greater mass of profit than medium or small enterprises. All this shows that Soviet economists who suggested that the work of enterprises be oriented only on the mass of profit index were wrong. The September 1965 Plenum of the C.P.S.U. Central Committee stressed that profitability is a very important index of an enterprise's activity, but is not the chief, let alone the only index. Profitability has been assigned an appropriate place in the system of plan indices characterising the activities of an industrial enterprise.

The new system of planning the work of industrial enterprises is inseparably linked with an improvement in the system of material stimulation. It has the aim of making every single worker highly interested in raising output and labour productivity.

The system of strengthening material stimuli underlies also the change in the planning of procurements and pur-

chases of agricultural produce, proposed by the March 1965 Plenum of the Central Committee of the C.P.S.U.

The Plenum elaborated a new system of planning procurements and purchases of agricultural produce. In essence it amounts to the establishment of fixed procurement plans for a number of years in advance. This makes it possible to combine the interests of the state with those of the collective and state farms.

A definite volume of grain purchases (3,400 million poods) at hard prices has been fixed for a six-year period ending in 1970 for all Union republics (the Tselinny Krai, i.e., virgin lands, in Kazakhstan being singled out under a separate heading). Since the volume of grain procurements does not fully fill the country's requirements in consumption and the laying in of stocks, purchases over and above the plan will be made at higher prices.

The March Plenum also set targets for the purchases between 1965 and 1970 of animal produce. As distinct from the grain purchases their volume grows steadily with every passing year. But here too the most important thing is that a fixed volume of purchases of cattle and fowl, eggs and wool has been established for a number of years in advance.

The new system of planning purchases in combination with a number of other important measures will make it possible to raise agricultural production in record time and to establish correct proportions in the development of industry and agriculture, the two decisive economic branches. It will strengthen the alliance of the working class with the peasantry.

The strengthening of the economic stimulation of enterprises, of cost accounting, of the material interests of workers in improving the work of enterprises is an organic part of the Soviet economic reform.

The economic reform consistently implements and develops further Lenin's principle of cost accounting.

The distribution of profits is also being solved in a new manner. The enterprises will retain a larger share of their profits than they did before. The amount retained by the enterprise will depend directly on the way it uses its productive assets, increases sales and profits.

At the same time the cost accounting principle is being strengthened in relations between enterprises. In the new

conditions the whole staff of the enterprise, every single shop is materially interested in the fulfilment not only of its own plans, but also in improving the work of the whole enterprise.

With the transition to the new system of planning and material stimulation three funds are being formed at every enterprise, namely:

- a) the production development fund;
- b) the material incentives fund;
- c) the fund for social and cultural measures and housing construction.

The material incentives fund and the fund for social and cultural measures and housing construction are formed out of profits. The production development fund is formed out of:

- a) profits;
- b) depreciation deductions;
- c) money received from the sale of surplus equipment.

All bonuses to the management, engineering and technical personnel and office workers for the results of their economic activities come out of the material incentives fund. Workers receive bonuses out of the wage fund and, besides, out of the material incentives fund. This links the wages of every worker with the overall results of the enterprise's work. This is particularly essential since at the present level of the development of production labour results depend not only on the work of individual workers but also on that of the collective as a whole.

Deductions to the material incentives fund are made at fixed rates. The latter are fixed for a number of years in advance and the material incentives fund is thus geared to the increase in the volume of sales and profits, and also to the planned level of profitability. The sum paid to the enterprise for the overfulfilment of the plan is smaller than the sum paid for the achievement of the plan indices. This helps to solve the perennial problem of the planning and administrative bodies, the problem of how to prevent enterprises from striving to obtain for themselves an easy plan but to make them disclose internal reserves and assume higher targets.

The question of financing capital investments is also of major importance. The policy of non-returnable financing

does not stimulate an economical use of the allotted funds. The September 1965 Plenum of the Central Committee of the C.P.S.U. pointed out that it was necessary to replace non-returnable financing by long-term crediting. This system is being introduced in the first place in operating enterprises.

Another important innovation is the charge made for the use of productive assets. It will be levied after the planned term for the running in of newly introduced productive capacities has expired.

The charge for the assets is not an additional payment by the enterprise into the state budget. A considerable part of the payments enterprises made into the budget will now be directed through this new channel. The charge for the assets will become the most important revenue source of the state budget and the share of other payments, including the turnover tax, will be reduced.

The transition to new forms of economic stimulation is inseparably linked with the improvement in price fixing. Without a scientific system of prices, which correctly reflects the socially necessary labour expenditure, there can be no genuine cost accounting. The September Plenum of the C.C. C.P.S.U. gave directions on the improvement of the price fixing system.

In the Soviet Union the radical improvement in the forms and methods of material stimulation of the industrial workers goes hand in hand with the provision of greater economic stimuli for agricultural workers.

According to the decisions of the March 1965 Plenum of the C.C. C.P.S.U. the basic (planned) purchasing prices on wheat, rye and other grains have been raised. State farms are also paid higher prices for sunflower seed. The new purchasing prices on grain have been drawn up with due consideration for the climatic and geographic features in the various zones and regions of the U.S.S.R.

To stimulate the growth of livestock production procurement and purchasing prices were raised as follows: for cattle by 20 to 55 per cent, for pigs by 30 to 40 per cent, for sheep by 10 to 70 per cent.

This was carried out without a parallel increase in the prices of bread, cereals, meat and meat products.

One of the most important components of the economic reform is the improvement in industrial management, that is, the transition to the system of branch ministries.

In reinstituting the branch principle of industrial management the C.P.S.U. and the Soviet Government proceeded from the premise that organisational forms must change in accordance with the requirements posed by the development of the productive forces.

The September 1965 Plenum of the C.C. C.P.S.U. noted that the organisation of industrial management through economic councils had a number of positive aspects.

In making the transition to the ministerial system of industrial management it is important to preserve everything that was rational and valuable in the old system. This refers notably to the inter-branch and intra-regional economic links, which are now likely to transcend the limits of individual ministries. In a number of economic councils small enterprises were merged, production was specialised and co-operated, specialised enterprises were created for the repair of equipment, the manufacture of blanks and tools for various industries in the economic region.

But the system of administrations organised by the economic councils had many shortcomings which rapidly outweighed the positive aspects. The main shortcoming was the fact that the management of an industry, which was in production and technological respects a single whole, was divided up among the different economic regions.

The branch principle of industrial management was violated in nearly all economic councils. Enterprises belonging to different branches were often managed not by specialised branch but by multi-branch administration.

The last years of the existence of economic councils marked the introduction of production combines (firms) working on cost accounting principle. Their emergence was on the whole progressive and was an attempt to counteract the violation of the branch principle in the system of economic councils. But these firms could not fully cope with the tasks they set themselves because they had to confine their activities to the given economic region and were divorced from similar firms in other regions.

The Decree of the Presidium of the U.S.S.R. Supreme Soviet of March 2, 1965, was an important preparatory

measure for the change in industrial management. According to this Decree the State Committees for Aircraft Technology, Defence Technology, Radio Electronics, Shipbuilding, Electronic Engineering, Medium Machine-Building were transformed into corresponding all-Union ministries. A U.S.S.R. Ministry of General Machine-Building was set up.

Having given the problem all-sided consideration, the September 1965 Plenum of the C.C. C.P.S.U. adopted the decision on the transition to industrial management through branch ministries.

In implementing the decision of the September Plenum the Presidium of the C.C. C.P.S.U. and the U.S.S.R. Council of Ministers adopted in October 1965 the decision on the Improvement of the Management of Industry. It outlined the main aspects of the work of ministries and other state administrative bodies.

The basic task of the ministries is to ensure high quality output at minimum labour expenditure, rational distribution of capital investments and an increase in their effectiveness, the implementation of a single technical policy, the correct utilisation of personnel, and an improvement in the organisation of labour.

The ministries became the distributors of material and technical resources, being allotted for the development of the relevant industry. As regards the realisation of the material and technical supply plans, this is being effected through the system of Main Supply and Marketing Boards and through the territorial organs of material and technical supply.

With the transition to the new system of industrial management a State Committee for Material and Technical Supply of the U.S.S.R. Council of Ministers was set up. This Committee plays a major role in the development of Soviet economy for it is charged with realising the material and technical supply plan on a nation-wide scale and with ensuring co-operated inter-branch deliveries. The Committee is also charged with distributing the output which is not being distributed by the U.S.S.R. State Planning Committee, the plan for the production of which is drawn up by the relevant ministries. The Committee also controls

that the ministries, departments and enterprises fulfil their delivery plans on time.

The Sixth Session of the U.S.S.R. Supreme Soviet adopted a law On Changes in the System of the Bodies in Charge of Industrial Management and the Reorganisation of Other Bodies of State Administration. This law juridically consolidated the transition to the branch principle of industrial management.

The transition to the new system of industrial management effected in the U.S.S.R. in accordance with the decision of the September 1965 Plenum of the C.C. C.P.S.U. should not be regarded as a simple return to the organisation of management that existed up to 1957, i.e., before the setting up of economic councils.

The decision of the Plenum on the reorganisation of industrial management is not a mechanical reinstitution of ministries. The latter are set up and function on a fundamentally new basis. The main aspects of their activities may be summarised as follows.

1) Centralised administration of the branches of industry is paralleled by a considerable extension of the rights, initiative and possibilities of enterprises.

2) Economic levers and cost accounting, which were used only formally, have now become the fulcrum upon which hinges industrial development.

3) The activity of new ministries is based on an extended network of large branch combines (associations) working on a cost accounting basis.

4) Greater centralisation in industrial management is combined with a heightening of the role of the Union republics.

While preparations were being made for the economic reform the C.C. C.P.S.U. and the U.S.S.R. Council of Ministers decided to place some additional aspects of economic and cultural development under the jurisdiction of Union republics. According to this decision the Union republican Councils of Ministers have the right:

to decide independently on the redistribution within certain limits of capital investments between individual republican production projects;

to decide on the volume of building and assembly work, which is not financed centrally;

to endorse itemised lists for the industrial construction and for cultural projects and amenities.

The Union republican Councils of Ministers will also consider draft plans, worked out by the U.S.S.R. Ministries and departments, targets on the designing of new enterprises and the reconstruction and expansion of operating enterprises, located on the territory of the relevant republic. The Union republican Councils of Ministers will submit to the U.S.S.R. Government their proposals on these and other questions dealing with industrial projects subordinated to all-Union bodies. This will create the necessary unity of centralised management of enterprises by the all-Union and Union republican ministries and the Governments of the Union republics. This will strengthen the principle of democratic centralism in economic development.

To ensure the territorial planning of industrial development under conditions of the branch principle of management, the law, adopted by the U.S.S.R. Supreme Soviet on October 2, 1965, decreed that the draft plans for the development of the republican economy for all branches of industry of both Union-republican and republican subordination, and also proposals on draft production plans of enterprises (except defence enterprises), subordinated to all-Union ministries, and located on the territory of the republic be worked out by the Union republican State Planning Committees.

The law also provides that the State Planning Committees are entitled to consider, draw up and submit proposals on questions of an inter-branch nature, concerning industry located on the territory of the relevant republic.

The session of the U.S.S.R. Supreme Soviet in October 1965 emphasised that the transition to the branch principle in industrial management made it important for all ministries to maintain the business ties that had formed between various enterprises belonging to different branches, that greater attention should be paid to the combination of production between enterprises within a given economic area, subordinated to different ministries. The session expressed concern that departmental barriers may hamper the solution of questions concerned with the industrial development of the region or the republic as a whole. The session also emphasised that under the new system of management

close business ties and day-to-day contacts should be set up between Union republican ministries and republican bodies by clearly demarcating and defining their rights and responsibilities.

In the report at the 23rd Congress of the C.P.S.U. Leonid Brezhnev said: "We should like to warn those working in the ministries against attempts to revive the narrow departmental approach to business that was a frequent fault of the old ministries."

The key problem in the development of industry under the new conditions is a rational combination of the "vertical" (branch, managed by ministry) with the "horizontal" (economic region and Union republics). The new system of industrial management creates all the necessary conditions for an optimal solution of the "vertical-horizontal" problem. But its solution can be achieved only through the joint efforts of ministries and local bodies.

One of the most important problems in the development of industry under the new conditions is the establishment, where it is expedient to do so, of direct links between enterprises. This makes it possible to improve the distribution of the means of production. The development of direct links between industry and trade also helps improve the supply of the population with consumer goods.

But it should be underlined that the development of direct links between enterprises is limited and cannot substitute for the system of centralised distribution of the most important means of production.

The Directives of the 23rd Party Congress on the Five-Year Plan for 1966-70 stress that "it is essential to improve the system of material and technical supply and to prepare a gradual transition to the planned distribution of equipment, materials and semi-finished products through wholesale trade."

Under socialism the establishment of economic links is not a sporadic process—the inter-relations between socialist enterprises are based on the general state plan.

Such, in short, are the main problems of the improvement of the system of economic planning and management, being implemented in the Soviet Union.

Since the transition to the new system of planning and the organisation of the work of enterprises along new lines

is not an easy matter and one requiring thorough preparations, the C.C. C.P.S.U. and U.S.S.R. Council of Ministers have decided to implement it gradually, completing it in 1967-68.

The transition of industrial enterprises to the new system was begun at the end of 1965.

The first group of enterprises to be transferred to the new system were machine-building, chemical, food, milk and dairy products and other light industries, ferrous and non-ferrous metallurgy, and the building materials industry. Some twenty factories in Moscow and the Moscow region and some factories in Leningrad, Kharkov, Voronezh, Gorky, Chelyabinsk, Gomel, Kaunas and some other cities have been transferred to the new system. During the first quarter of 1966 a total of 43 enterprises and 17 ministries adopted the new system of planning and economic stimulation.*

Among the first to be transferred were also enterprises which attained the required level of profitability, possessed the necessary material and financial resources, were producing easily marketable output, and had the necessary qualified economic personnel on their staff.

The enterprises being switched to the new system embrace the whole set of components, all its elements: planning, economic stimulation, material incentives, financing and credits.

In March 1966 the U.S.S.R. Council of Ministers approved the plan of organisational measures for the transition of industry to the new system for the period of 1966-68. Ministries and departments worked out concrete plan for the relevant industries on the basis of this general plan.**

In the course of the gradual implementation of the economic reform experience was accumulated, the first results were summarised, shortcomings were brought to light and rectified, ways were studied for the further improvement of planning and economic management. By November 1966 a total of 673 industrial enterprises were working under the new system. They employ 10 per cent of the total number of people engaged in industry, and account for

* *Izvestia*, February 12, 1966.

** *Ibid.*, March 19, 1965.

over 12 per cent of the Soviet Union's industrial output. Besides, 259 motor transport establishments, a number of railways and other transport utilities as well as some enterprises of the Ministry of Communications were shifted to the new system.

The first experience of the work of enterprises along the new lines demonstrated that the economic reform had created favourable conditions for an increase in the effectiveness of social production. The enterprises working under the new system have achieved important successes, have considerably overfulfilled their plans, substantially raised the productivity of labour, made large profits, and raised the quality of their output. The new system of planning and economic management stimulates enterprises to use their internal reserves.

The introduction of charges for the use of productive assets makes the enterprises interested in the better utilisation of the fixed and circulating assets. Nearly all enterprises working under the new system have brought to light and realised a considerable amount of idle equipment.

In 1965-66 the switchover to the new system was confined mainly to individual enterprises. In 1965-66 only the soda, tobacco and tea industries were switched over to the new system. The second stage in the implementation of the reform, begun in 1967, affected the cotton, knitwear, hemp and jute, wool, silk, sugar refining, instrument-building and other industries. A group of ferrous metallurgy enterprises is also being transferred to the new system.

The regularisation of price fixing was of the greatest importance for the transition to the new system of planning and management. The new wholesale prices abolished the unfounded discrepancies in the level of profitability between individual enterprises and branches of industry.

The drawing up of scientifically based five-year plans with a breakdown into yearly targets for all branches and enterprises was of cardinal importance to the economic reform.

While the economic reform in the U.S.S.R. is being implemented successfully at present, there were considerable faults in its early stages. A number of enterprises failed to fulfil their sales plans and their increase in labour

productivity fell short of the plan. In some enterprises wages grew at a higher rate than the labour productivity.*

These and other shortcomings in the implementation of the economic reform were duly remedied. At the same time corrections were made in the mechanism of the new system, which was improved and adjusted in keeping with the conditions and special features of various branches of Soviet economy.

CHAPTER V

METHODOLOGICAL KEY PROBLEMS IN DRAFTING ECONOMIC PLANS

Definition of the Methodology of Planning

The theory and methodology of planning is based on Marxist-Leninist economic teachings, and in particular on the theory of extended socialist reproduction. Like all other economic sciences, the theory and methodology of planning continues to develop from the experience gained in socialist construction and economic planning.

In discussing the First Five-Year Plan Krzhizhanovsky emphasised that the methodology of planning was inseparably linked with the practice of planning. "Methodology," he said, "which takes the form of abstract generalisations in a theoretical textbook is *one thing*; methodology which springs from practice is *quite another*. I think that the science of planning, like all other sciences, will develop by combining theory with practical needs. When anyone tells me that a methodology of planning must be created from scratch, I reply, 'excuse me, but that methodology has already been partly created, and its most "scientific" part may well be precisely that practical experience which our country has gained.'"^{*}

Methodology is generally defined as the sum total of research methods on any given subject, and as the science of cognition, while methods is described as the sum total of the means or ways used for the systematic, consistent and most expedient implementation of a task. This differs somewhat from the usual definition of methodology and methods. General problems connected with the drafting of a unified economic plan are usually referred to as the me-

* *Izvestia*, October 28, 1966.

* G. M. Krzhizhanovsky, *Collected Works*, Vol. 2, 1934, p. 364, Russ. ed.

thodology of planning while the means or ways by which separate sections and indices are worked out and their fulfilment checked, are called the methods of planning. We shall adhere to these definitions.

The methodology of planning can develop only if it relies on Marxist-Leninist theory and practical experience. The fundamental difference between Marxist-Leninist and opportunist theories lies in their approach to the problems concerning the links between planning and political economy, on the one hand, and economic practice, on the other. Marxist-Leninist theory and methodology of planning maintain that the mighty development of productive forces creates the material prerequisites for a planned economy and that the socialist revolution can best utilise them by establishing public ownership of the means of production. Opportunists hold that the modern development of productive forces alone makes planning possible.

Marxist-Leninist theory and methodology of planning state that planning should be conducted by the state of the working people and led by the Party of the working class. The state bases its plans on the requirement for the development of the productive forces and production relations at the given historical stage. The state also owns the decisive means of production and, as the representative of all the working people, becomes the organiser of all social labour. Opportunist theories of planning negate the economic role of the socialist state and make no distinction between capitalism and socialism.

Marxist-Leninist theory and methodology of planning are materialist and their rapid development is based on the wealth of experience gained in socialist construction. Opportunist and revisionist planning "theories" are not only speculative but conflict with science and the basic trends of historical development; they are essentially idealistic and reactionary and provide no basis for further progress. The 1958 programme of the Austrian socialists is a classic example of the nonsense that emerges from opportunist planning. It admits that socialist economy presupposes long-term planning and aims at securing full employment, an increment in the social product and a rise in the standards of living. It adds that the principal methods of planning should rest in state and private capital investments, the

credit, customs and taxation policy, and the availability of capital on the market. "Competition and free enterprise will thus continue to remain in force," the programme says.

This abstract explanation of the tasks and methods of planning robs it of its intrinsic power and meaning. A closer look at the methods of planning and the planning itself shows that since they are mistakenly based on the assumption that planned economy is compatible with the domination of private property, they are of neither theoretical nor practical value.

Like the Austrian programme, the 1958 draft programme of the German Social-Democratic Party confines itself to theories which have little if anything to do with real life. The draft programme declares that the main task of planned economy in a free society is to directly influence economic development. Its authors hold that this task will be fulfilled only if production, the national income, consumption standards, imports and exports, financial relations and the exchange of goods between the various economic groups are continuously supervised. "The economic and political measures necessary to ensure a sound development can only be established by supervising economic circulation." This "planned" policy would be implemented by means of economic calculations and the national budget. The state, the draft programme says, must never directly intervene in the economy and property relations must remain unchanged.

Similar views on the methodology of planning are held by British Labour Party and by all sorts of reformists and revisionists. They consider planning a complex of universal methods suitable for any social system and able to serve any class. This approach to planning, which pays no heed to historical or class considerations, is typical of many bourgeois economists. The American economist George B. Galloway declares that "like any technology, planning is politically and ethically neutral..."* Thus planning may be used by any form of society. The Englishman Hugh Dalton says that planning is not the same thing as socialism. George B. Elliot believes that planning can be considered a neutral instrument, applicable to any purpose.

* George B. Galloway, *Planning for America*, N. Y., 1941, pp. 7-8.

In reality the methodology of planning can be used effectively only in a truly socialist society. Even if the separate sections of the plan are correctly drafted, the plan is useless if it fails to take account of the true historical conditions.

In 1919, Karl Ballod, a German professor, published a book in which he attempted to show what large-scale production could do if "it was transformed into a single economic organism". The basis of his theory is that the conditions for this have already been created by capitalist development but, under the existing "capitalist economic system they do not form a single organism since this would conflict with the interests of the ruling circles".*

Ballod also drew up detailed computations to show that by developing large-scale socialist production in industry and agriculture and by implementing the fruits of scientific achievements it would be possible not only to provide every German with employment but also to shorten the working day, to carry out the overall electrification of Germany in three to four years, raise the standard of consumption for the main animal products by at least one-third, double the consumption of sugar and vegetables and treble the real wages of skilled workers as compared with their pre-war level (pp. 41, 129-31, 155). Discussing these projects, Lenin said that "...he compiled a scientific plan for the socialist reconstruction of the whole national economy of Germany. But his being a capitalist country, the plan never got off the ground. It remains a lone-wolf effort, and an exercise in literary composition."**

Karl Ballod did not consider a revolutionary reorganisation of capitalist Germany necessary for the implementation of his project, and he soon discovered that his efforts were falling on barren ground. Together with Karl Kautsky and Rudolf Hilferding he participated in the Commission for the Socialisation in Berlin where he hoped to gain some recognition for his plans. But, under pressure from the capitalists, the Scheidemann government disbanded even this seemingly commission.

The work of Ballod, this "lone-wolf", enormous as it

* Karl Ballod, *Der Zukunftsstaat*, Stuttgart, 1920, S. 10.

** Lenin, *Collected Works*, Vol. 32, p. 140.

was, is small in comparison with the collective efforts of Soviet specialists working on the GOELRO plan. This plan was guided by Lenin's theory of socialist construction and used all the data at the disposal of the Soviet state for the computation of the indices in the plan, and not scraps of information Ballod had access to. As a result the GOELRO plan was far more perfect in all respects than Ballod's earlier draft which had been confined to production targets and had not touched on the social problems of economic development. This makes the computations in his plan incomplete. His erroneous views on the transition to socialism make his general sociological approach to planning problems unacceptable and contradictory to Marxism.

The methodology of planning will be in consonance with the reality of the plan and scientific conclusions only if it, like the plan itself, takes objective economic laws into account. If it fails to do so, it is likely to inflict considerable damage to the organisation of planned economy. In the middle of the 1920s, bourgeois economists working in Gosplan suggested that the method of extrapolation of static and dynamic coefficients be used to draft plans. If this extrapolation had been adopted, the rate and relations typical of the pre-revolutionary and the mixed economy would have been applied to economic development in the reconstruction period and would have greatly harmed socialist construction in the U.S.S.R.

Commenting on the miscalculations and errors in the 1921 food plan, Lenin declared: "Of course, it must be said that there again we had no basis for our estimates. All capitalist countries, in spite of the anarchy and chaos intrinsic to capitalism, have as a basis for their economic planning, the experience of many decades which they can compare, for they have the same economic system differing only in details. From this comparison it is possible to deduce a genuinely scientific law, a certain regularity and uniformity."*

Under socialism society is guided by advanced theory and research is organised on a national scale. Thus the study of the laws of economic development bears far more fruit than under the limited capitalist system.

* Lenin, *Collected Works*, Vol. 32, p. 174.

Any methodology which studies prevailing economic conditions in isolation from the objective economic laws of social development, inevitably evolves all sorts of non-scientific indices of the structure of and changes in the economy. A typical example of a mistaken methodological approach is John Maynard Keynes's "multiplier", so popular among bourgeois economists.

"Multiplier" is Keynes's term for the ultimate increase in employment and national income resulting from a given increase in investments. This index resembles Groman's empirical static and dynamic coefficients, and is also related to them methodologically.

Keynes established that in the U.S.A. the employment multiplier, i.e., the ratio of the increase in general employment to the increment in employment directly connected with new investments, was 2.5. In other words, the increment in investments brings with it not only an increase in employment in the building industry, but also a considerable growth in general employment. It is possible that at certain times the ratio of investments to employment noted by Keynes really did occur, but these particular instances cannot really be considered as a general law. Keynes himself says that "in estimating the prospects of investment, we must have regard, therefore, to the nerves and hysteria and even the digestions and reactions to the weather of those upon whose spontaneous activity it largely depends."* It would be sheer foolishness to base planning on an index relying on such unpredictable factors.

It is clear that in solving general problems connected with drafting plans the methodology of planning must be based on a detailed study of objective economic laws and should therefore be closely linked with political economy. The methodology of planning deals with computation techniques and therefore makes wide use of statistics, the data provided by economics of the various economic branches, economic geography, accounting, etc.

Profitable use can be made of the mathematical apparatus to compute indices for the links between the various economic branches, between enterprises, the variants for

* John Maynard Keynes, *The General Theory of Employment, Interest and Money*, London, 1936, p. 162.

the effectivity of capital outlay, price variants, standards for the consumption of materials and other such computations. The methods of planning production and technical progress rely also on conclusions drawn from the natural and technical sciences. Like methodology, planning methods develop from advanced theory and practice. Wherever planned economy functions, planning methods are applied and result in considerable improvements.

For the balanced development of the national economy it is necessary to work out not only the methodology and methods for drafting a unified economic plan, but also the methodology and methods for planning of various branches of all aspects of economic activity. In addition to the general problems of planning methodology and methods, special methodologies and methods must be worked out for industry, agriculture, transport, construction, trade, cultural activities, public health and other productive and non-productive spheres of the national economy; for planning the introduction of new equipment, the location of the productive forces and the development of economic regions; for planning labour productivity and wages, prices and profits, production costs; for drafting the financial, credit and money circulation plans, etc.

All targets in the plan are laid down for two purposes: firstly, to illustrate growth rates and thus the various levels of development; secondly, to determine the structure, ratios, and proportions of the plan. Naturally, rates and proportions are interrelated and in a unified plan this relation assumes a quantitative and qualitative entity which cannot be violated without adverse results. But from a purely logical standpoint, the projecting of rates and proportions can be divided, if their integral entity is borne in mind.

The main problem for the methodology of planning is how to overcome the difficulty of planning interrelated elements. Since all elements of the economy are interrelated, it would seem impossible to determine targets for a single branch which is dependent on the targets for the other branches. A vicious circle is created since it is obviously impossible to lay down targets for all branches simultaneously.

In the past this "contradiction" gave rise to various non-scientific views about a "wholeness of the economy", "a

law of chain reactions", etc., etc. It is worth remembering Lenin's article "An Integrated Economic Plan" in which he calls V. P. Milyutin's discourse on the law of chain reactions nonsensical and overscholastic.

The "vicious circle", "chain reactions" and other such imaginary dangers of planning are eliminated as the plan is drafted. First of all the planning bodies determine the plan's main link and the principal aims and trends determined by the laws governing socialist society's economic development. In general planning practice, as in the planning of rates and economic proportions, the planners proceed from the decisions of the Communist Party, which lay down general economic directives based on the objective needs of socialist construction for the period covered by the plan.

The Party points out and explains the plan's main links. A thorough analysis of the laws of development as well as great political skill is needed in selecting the right link for the economic policy and the national plan. "You must be able at each particular moment," Lenin said, "to find the particular link in the chain which you must grasp with all your might in order to hold the whole chain and to prepare firmly for the transition to the next link; the order of the links, their form, the manner in which they are linked together, the way they differ from each other in the historical chain of events, are not as simple and not as meaningless as those in an ordinary chain made by a smith."* Each period covered by the plan has its most important sections, its main link. But the mere fact that one link is of particular importance does not mean that the other links can be ignored.

To give concrete expression to the laws of social development, the rates and proportions in the economic plan must be translated into figures. Party directives act as the yardstick for the correctness of these targets.

Before the plan is drafted a system of indices is worked out.

System of Plan Indices

Before work is begun on the actual plan, the central planning bodies have to work out a system of plan indices, i.e., a set of co-ordinated targets for the planned period,

* Lenin, *Collected Works*, Vol. 27, p. 274.

and an enumeration of measures to ensure the fulfilment of these targets. We shall not make a detailed study of the system of indices in this book but concern ourselves only with the main principles applied in its elaboration.

Extended socialist reproduction forms the content of the economic plan. The system of indices must therefore reflect all the various links in that process. Only by using the theory of reproduction as a basis can a harmonious and organically unified system of plan indices be elaborated. If this theory is not observed the indices will be a mere collection of figures and the tables in the plan—"a silent graveyard of figures". The unity of the socialist reproduction process is a guarantee that the system of plan indices also form a unity; the objective links of reproduction make the indices interdependent and interrelated.

The process of reproduction is divided into production, distribution, exchange and consumption, and the plan indices must reflect these divisions. The plan reflects the initial level of the productive forces and relations of production and lays down the scale and direction of their further development. It also contains an evaluation of productive capacities, raw material resources, labour force, the productivity of labour in the various branches of the economy and an analysis of the process of socialisation.

In analysing the realisation of the aggregate social product a distinction is made in the plan between Department I and Department II of social production and in the national income between the share allotted for accumulation and that for consumption. To get a more detailed picture about the reproduction of the social product the plan is broken down into economic branches, existing at the given stage of the social division of labour and determines the main objectives in the distribution and consumption of the basic products. Property forms and social classes are also taken into account when the system of indices is worked out. All indices are given in both physical and monetary terms.

The plan organises reproduction and its indices, therefore, are a reflection not only of the economic structure of society but also of the existing state and economic system and organisation. The targets in the system of indices are broken down into those for Union republics, ministries,

and departments. The republican and departmental sections of the plan indicate the body responsible for implementing the assignment and thereby ensure an element of organisation into the economy.

The regional break-down of the plan, i.e., the fact that it contains targets, which ensure the most efficient distribution of the productive forces and the complex development of all economic regions, is enormously important in so vast a country as the Soviet Union. The plan also provides targets for economic co-operation with other socialist countries in accordance with the international division of labour.

The system of plan indices is closely linked with the economic methods used to organise labour in the economy—with economic accounting, the distribution of incomes and the remuneration of labour, with price formation, etc. These links are expressed by the targets for the formation of wage funds, including bonus funds; the formation of the funds of enterprises, the revenue of the state budget, etc.

The above is a very general survey of the indices in a unified economic plan. The plan indices are drawn up for the national plan as a whole, for the republican plans, the plans of industrial enterprises, collective farms, etc. The closer the plan gets to the enterprise, the more concrete are the indices, although great care is taken not to change their intrinsic nature. All indices, from the very lowest production link to the highest command, have an identical content. This is the *sine qua non* which enables the plan indices to be unified into the single economic plan. Summary indices are especially important for long-term economic development plans.

In addition to the system of indices now being used (national income, gross industrial output, gross agricultural output, capital investments, trade turnover, etc.), the following indices could profitably be added: gross output of the economy (social product); accumulations in the economy (including state accumulations); total consumption (broken down according to classes, i.e., the working class and the collective farmers); public consumption funds; aggregate labour productivity of workers engaged in material production; per capita production of industrial and

agricultural products, accumulation of socialist wealth, purchasing power of the ruble, and also per capita accumulation and consumption of the Soviet population compared to that of the other socialist and leading capitalist countries. These indices would give a more complete picture of the levels, rates and results of economic development as a whole. They are rarely computed, and when they are, serve only a narrow circle of specialists, and are hardly ever used in actual debates on plans.

The gross output of the economy is computed when the balance of the economy is drawn up but has, until recently, been sadly underrated by economists. If the plan is to ensure strict proportionality it must contain not only indices for the growth in industrial output, or in industrial and agricultural output, but also for that of all spheres of material production (industry, agriculture, construction, transport, etc.). Since social development stems from the growth of all these branches, their progress must be appropriately expressed in the plan figures.

At present the total magnitude of the accumulations, including state accumulations, is contained only in the specific accounts of the economic balance, and only figures showing the share of accumulations in the national income are published. Economists are naturally interested not only in the share, but also in the absolute size, structure and dynamics of these accumulations. State capital investments, although only one category of all state accumulations, are often identified with total accumulations, even though they do not include the investments in the circulating assets and in reserves. The scale and rate of socialist reproduction depends not only on the increase in the fixed assets but also on the increase in the circulating assets, and the plan should therefore include an index showing state accumulations as a whole.

Neither should we ignore the accumulations of collective farms. The sharp increase projected for agricultural output will boost collective farm accumulations and will then be used to finance direct production needs and social development in the countryside. The accumulations of the population should also be taken into account. The investments of the population in housing construction and in the ac-

quisition of property now account for a large sum of money and increase from year to year.

The indices showing the share of consumption in the national income, the dynamics of real wages and farmers' real incomes cannot double for indices showing the sum total of all consumption, consumption of the two classes in socialist society or the dynamics of consumption. They must be given their rightful place among the principal indices of the plan.

The index for the labour productivity of all workers engaged in the sphere of material production is usually also ignored. In the recent past plans contained only an estimate of the labour productivity in industry, building and transport and indices for agriculture were not computed. The calculation of an index for social labour productivity (net product in relation to the total number of participants in material production) would improve planning practice and would illustrate the progress achieved in the growth of labour productivity.

Since the practical implementation of the Soviet Union's main economic task, that of surpassing the principal capitalist countries in per capita production, has been set under way, comparative computations to chart the progress have also become essential. Recent plans compared per capita production in the Soviet Union with that of the principal capitalist countries only for some products.

Any study of the per capita production based on a limited range of products makes it difficult to draw correct conclusions for overall per capita production. There are many reasons for the different output levels of similar products in different countries: firstly, different social systems; secondly, the fact that natural resources are not distributed uniformly in all countries; thirdly, historical features, and so on. The socialist countries therefore cannot and should not copy the pattern and per capital output standards of capitalist countries but should have a more rational production pattern of their own. The overall per capita standards should be higher in the socialist countries than in the capitalist countries. This makes it imperative to compute overall indices.

The volume and rate of accumulation is a perfect example of the Soviet Union's success in the economic race with

the capitalist countries. As yet no comparison has been made between the levels and rates of accumulation in the Soviet Union and the capitalist countries but such indices could well be used to determine the validity of long-term plans.

The index for the per capita consumption of the population, too, is of vital importance to planning. It shows how actual and planned standards compare with scientifically established standards that express the normal requirements of man and ensure the extended reproduction of the labour force. These indices would also show how the levels of different class consumption are drawing closer and would illustrate the relation between the growth in consumption and in labour productivity. The index for per capita consumption is important in any analysis of the progress made in achieving the highest level of consumption in the world, although, as yet, scientific workers, planners and statisticians have not worked out comparative consumption levels for the various countries. Since the advantages of socialism are particularly apparent in the growth in working classes consumption, comparative data on the consumption of these population groups in socialist, capitalist and developing countries would not only enable a check to be made of the validity of long-term plans but would be of enormous exemplary value.

The sum total of the public wealth was computed during the First Five-Year Plan; now it is also computed in the national economic balance as the reproduction total. But these computations have not received general recognition even by the planning bodies and are certainly not used in public discussions or in checking draft plans. So far no steps have been taken to compare the national wealth of the Soviet Union with that of other countries.

An index for the increase in the purchasing power of the ruble* would be useful in many other respects. Any increase in national purchasing power shows that trade turnover is expanding, that the population's real income is growing, that cash and issue plans correspond to the economic plan and that the state budget is being success-

* Price index in base period divided by price index in report period.—Tr.

fully fulfilled, i.e., that all is well with the most important parts of the plan. The far too general targets for the growth of the ruble's purchasing power contained in the five-year plans, provide little information for executives. The time is now ripe for developing more concrete targets.

Indices for the effectivity of capital construction would greatly facilitate the drawing up and appraisal of plans. First attempts to work out methods for computing coefficients for the effectivity of capital construction have been made and practical experience will undoubtedly contribute to the elaboration of representative indices.

General economic indices, reflecting the dynamics of social processes during the period of full-scale communist construction (indices for socialisation, for the elimination of disparities between town and country and between physical and mental labour, etc.) would greatly assist the elaboration of long-term plans.

Indices for the various branches of the economy are of vital importance. The general economic indices enumerated above are invaluable for an analysis of the economic tasks in the plan and help to determine the main trends of economic development. Plan indices for the separate branches, however, facilitate the organisation of labour and production for the fulfilment and overfulfilment of plans.

Gosplan has published two books containing forms and indices used in the drawing up of long-term plans. Though far from perfect, they do give a picture of the most important plan targets for the various economic branches. Since these forms and indices are sent to Union republics, ministries and departments, they do not contain general economic indices (or very few), but outline republican and departmental plans although containing no survey of the synoptic sections of the plan (the economic balance, financial plan, fulfilment of the main economic task of the Soviet Union, co-operation with socialist countries).

To facilitate the endorsement of the plan by the Government and its drafting by republics and ministries, indices and forms are divided into those requiring government endorsement and those requiring no such endorsement (calculation indices). The latter are necessary to show the validity of the drafts and therefore contain much less detail than those being endorsed. Calculation data are usually

prepared centrally, without the participation of enterprises. Republics and departments drew up endorsed indices for the 1959-65 plan in the following branches: industry, geological surveying, agriculture, transport and communications, capital construction, labour and personnel training, trade, culture and health, production and distribution costs. The calculation and reference data supplemented the indices of the above sections of the plan and contained computations for the balance of the national income, indices for the various economic regions of the Russian Federation and computations of the required material resources.

As an example of which indices are endorsed and which are not, let us look at the indices in the industrial section. The endorsed indices in the long-term plan for the development of industry in 1959-65 were: gross and marketable output; output of key products in physical terms; basic targets for the mechanisation and automation of production processes and the introduction of progressive technology; basic targets for the designing of new machines, mechanisms, equipment, devices and materials; basic targets for research and experimental work in the most important research fields; volume of capital investments and of construction and erection jobs, acceptance of planned capacity and volume of incompleting building jobs, itemised lists for capital construction jobs; targets for labour productivity; total number of workers and total wage fund and targets for reduction in production costs.

The Seven-Year Plan for the development of industry contained the following auxiliary and reference indices and data: division of industrial output into groups A and B; computation of the extent to which productive capacities are utilised; technical and economic indices of the work of enterprises (coefficients for the extent to which blast furnace capacity is utilised, output of steel per square metre of open hearth furnace floor area, utilisation of capacity at power stations over time, yield of yarn from raw cotton, yield of sugar from beet, etc.); detailed technical and economic data substantiating the figures in the plan for the principal branches of industry; balance accounts for the main types of raw materials, extracted and utilised by industry (iron and manganese ore, copper, lead and zinc concentrates, oil); recommendations for the develop-

ment of factory specialisation in the machine-building industries; computation of the requirement for specialists; computations for net output (gross output less outlays on materials), for industrial output, capital investments and the acceptance of planned capacity in the economic regions of the R.S.F.S.R.; computation of the necessary material resources, including consumption standards and measures to lower them.

The indices and forms in the Seven-Year Plan were simpler and better planned than those in the Sixth Five-Year Plan and stipulated basic targets for experimental research. Indices for industrial output according to the economic regions of the R.S.F.S.R.; the technical and economic indices for the operation of enterprises, and some other indices which formerly had to be endorsed, have since become auxiliary.

In working out these indices attention should be paid to the specifics in the separate industries and the prospects for the development of technology. A thorough knowledge of the state of technology in foreign countries is also a vital necessity. It would also be useful for the plan to compare the technical levels of different groups of enterprises, i.e., dividing them into advanced, medium and backward enterprises.

The branch indices should provide the best possible solution of the problems connected with the drawing up and implementation of the plan and the solution of general state needs. This means that they must provide a stimulus for the full use of the internal reserves of enterprises and enlist the efforts of the working people.

To achieve these aims all economic levers (wages, bonuses, profit, the funds of enterprises, the financing of the own circulating capital and of capital outlays of enterprises, and bank credit) must be linked with the plan targets in such a way as to make both the enterprises and their workers materially interested in the fulfilment and overfulfilment of high targets.

Until recently, however, enterprises and ministries welcomed drafts containing deliberately understated targets, since the bonus fund, the deductions from profits to the enterprise fund and hence the circulating capital and the funds for capital construction formed at enterprises

depended only on the fulfilment or overfulfilment of the plan for cost reduction, the improvement in the quality of output and the fulfilment of production, labour productivity and co-operated delivery targets. The actual size of the targets was not taken into account. The old system made it profitable for enterprises to minimise targets and conceal reserves in order to overfulfil plans and receive greater rewards.

Not long ago the initiative of enterprises was also inhibited by excessive reglementation of their activity and repeated changes in the plan throughout the year. The size and effectiveness of investments in circulating capital and capital construction were decided mainly by the central economic and planning bodies and the enterprises themselves had no part in determining the rational utilisation of these means. This naturally interfered in the rational use of their allocated funds.

The July (1960) Plenary Meeting of the Central Committee of the C.P.S.U. noted that planning and economic bodies were giving far too little attention to improving the indices in the economic plan and instructed the planning bodies, the Central Statistical Board and the U.S.S.R. Academy of Sciences to draw up recommendations for a further improvement of state plan indices with a view to providing greater incentives for enterprises, and thus achieving a more effective use of their fixed and circulating assets, the production of high quality articles in the required assortment, the raising of labour productivity and the reduction of production costs.

The current improvement in planning changes also the system of indices in production plans. Far fewer indices will be endorsed by higher authorities, others will be adjusted to raise the effectiveness of production. The index for gross output has been replaced by a target for the volume of sold output. Indices for the profit and level of profitability have become far more important. Only the wage-fund index has now to be endorsed, while the indices for labour productivity, staff establishments and average pay will be planned by the enterprises themselves. The role of many indices, such as those for the introduction of new equipment, progressive quotas for the use of raw materials and equipment and the acceleration of construction

jobs, is being boosted. A new approach to planning the formation of enterprise funds (funds for material incentives, social and cultural activities, housing construction, and the expansion of production) is also being developed. The accounts of enterprises will still contain indices for gross output, labour productivity, staff establishment, average wages, costs, etc., to help analyse and appraise the results of their activities.

In the part of the plan concerned with the development of agriculture more attention should be paid to the index for the gross agricultural output and to that of separate branches and social sectors. In our opinion this new method of planning marketable output and procurements (state purchases) does not eliminate the need to compute the gross resources of agricultural production and their distribution to the principal consumers. A serious shortcoming in plans drawn up before 1953 was that agricultural output was given only in physical terms, while monetary terms were completely ignored. The sizable part of output remaining in the countryside and used for production and personal requirements, was not even reflected in the plan. Only by accounting for all resources, both commodity and non-commodity output, can we judge whether all the requirements of the economy and the population in agricultural output are being satisfied.

For the planning of agriculture to be effective the plan must be broken down into zones and indices for the yield per unit of area must then be worked out on the zonal principle. Many agricultural output balances (fodder, sugar-beet, potato and other vegetables, fresh dairy products) are useless unless broken down into such categories. Zonal specialisation of agricultural production also permits scientifically based plan indices for the yield per unit of area to be worked out.

Formerly the yield per unit of area was often computed by dividing the planned yield by the area; now a sort of "rated capacity" can be established for agricultural enterprises, i.e., the optimal productivity per unit of agricultural area that can be obtained by a rational combination of the production branches and the application of the most suitable agricultural techniques. A comparison of actual and planned indices with the "rated capacity" will enable

us to evaluate the utility of planning in our progress towards better agricultural management and the effects projected standards will have on the economy. Zonal planning sets the planning of the cost and level of profitability in agricultural production on a sound basis.

Plan indices must be improved not only in industry and agriculture but also in other branches of the economy. It is extremely important to establish rational indices for the capital construction plan. At the Twenty-First Congress of the C.P.S.U., N. V. Podgorny pointed out that the existing practice of planning construction does not make for a decrease in building costs. Limits for labour, wage funds, materials funds and other indices are determined not according to the building work in physical terms, as they should be, but in terms of money. This gives rise to the false impression that the higher the estimate, the better is the construction industry supplied with materials.

Gosplan has made certain improvements in the indices for this branch. A distinction is now being made between industrial and socio-cultural projects, joint plans are being drawn up for the building and the building materials industries and capital investments and material resources needed for the construction of the whole project according to the building schedule are being assessed.

The planning bodies are paying a lot of attention to the improvement of plan indices, but this calls for persistent efforts also on the part of economists and engineers. In this book we are chiefly concerned with a study of the main principles on which the system of indices in the state economic plan is based.

The indices for the development of the Union republics are no less important than those for the national economic plan. Indices showing comparative levels of the economic and cultural development of the various republics as well as the principal links between them are absolutely essential. With this in mind Gosplan included the following indices of the economic and cultural development and living standards of the population of the Union republics in the 1959-65 plan: national income, industrial and agricultural output, expenditure on social and cultural needs, state capital investments and per capita trade turnover; labour productivity in industry and construction; real wages, in-

come of collective farmers in money and kind; structure of the able-bodied population employed in the economy; number of factory and office workers, number of pupils and students, specialists, physicians, hospital beds and children's institutions per 1,000 or 10,000 population.

It cannot be denied that all these indices are important, but to give a fuller analysis of economic development they must be extended. We think that it is essential to compute the indices for the gross per capita output of the economy; the labour productivity not only in industry and construction, but also in agriculture and in the whole sphere of material production; the balance of the net output of the republic (the sum total of production, consumed and accumulated in the republic, and the balance); the volume and rate of consumption of the working people; electricity and power available to labour; the balances of the production and consumption of key types of output; provision with housing, school buildings and boarding schools; the national standard of literacy from the age of eight onwards; indices for the educational status of the population from 25 onwards and the network of cinemas, radio, TV, clubs and libraries.

Planning Growth Rates

The problem of growth rates is of tremendous importance—possibly the crucial problem in socialist construction. In the past high growth rates were vital to the Soviet Union to eliminate the extreme economic backwardness inherited from the tsarist government and also because it was the only socialist country in the world surrounded by capitalist states. In the words of Lenin, we had to overtake and outstrip the advanced countries or perish.

But even at the present stage of the Soviet Union's development the problem of growth rates has not lost its significance. The basic economic task of the Soviet Union can be accomplished only if high economic growth rates are secured. Growth rates are also a basic problem in the other socialist countries.

The supremacy of the socialist system of economy over the capitalist system makes it possible to plan high growth

rates. Under socialism the prerequisites for a high economic growth rate are public ownership of the means of production; the absence of crises and unemployment; the rational use of productive resources; the systematic increase in the people's welfare and specialist skills; the virtual absence of social limits on the sale of products and favourable conditions for social accumulation, and technological development.

Even in a communist society the problem of growth rates will probably continue to exist, although they will no longer be needed to gain time in the competition with capitalist countries. Communist society, which will make far better use of natural forces, will thus raise the welfare of the rapidly growing population by a high rate of production development.

In drafting and implementing plans it should be remembered that the increase in consumption is dependent on an increase in production and that the two are interlinked. The increase in the people's real income and in consumption presupposes certain changes in the level of labour productivity. The experience of socialist construction shows that the growth rate for labour productivity must overtake the growth rate of the income of the population. In the experience of the socialist countries the following relation exists between the growth of labour productivity and that of production: if full utilisation is made of the people employed in material production and the employment figure remains steady, the industrial growth rate (the structure of production remaining unchanged) equals the labour productivity growth rate, whereas if new workers are drawn into production, the latter is exceeded.

Typical of the socialist system of economy are higher production, labour productivity and consumption growth rates than in capitalist economy. They are also valuable as a criterion for evaluating the merits of plans, and showing whether or not a correct methodology has been used.

There is no single index by which a country's economic growth rate can be planned. A system of interlinked indices is necessary to enable us to make a correct appraisal of the dynamics of the economy as a whole. The country's economic growth rates can be characterised by the following basic indices:

(i) aggregate social product, net product of the branches of material production (national income), gross output of the key branches of the economy with a break-down into the production of the means of production and the production of consumer goods, both in total and per capita;

(ii) productivity of social labour in the key branches of industry;

(iii) total accumulation, state capital investments in the fixed and circulating assets;

(iv) total consumption, per capita consumption, retail trade turnover;

(v) training of skilled workers;

(vi) national wealth, fixed productive and non-productive assets, material and financial reserves.

Individual indices can be used in some specific instances, i.e., in computing the national income growth rate, industrial growth rate, etc. But in planning stable economic growth rates and the dynamics of the economic system as a whole, we must use a system which objectively reflects the whole complicated process of extended reproduction. Such a wide system of indices is necessary for planned growth rates because public property unites all enterprises into a single economic body, and this opens up the possibility and the need to make provision for the requirements of all society and, hence, to use production resources proportionally.

The most important and most difficult part of drafting the economic plan is in the planning of growth rates for industry and agriculture, capital construction, accumulation and consumption, the training of specialists and labour productivity. The growth of other economic branches is linked with these rates. The history of planning in the Soviet Union shows how much importance was attached to achieving high development rates for socialist industry and accumulations needed for that purpose. When a large number of factories had been built and a huge army of skilled workers and specialists was needed to run them, the Party advanced the slogan—"personnel decides everything". At present we are witnessing the struggle for higher agricultural growth rates.

The growth rates for the separate branches of the economy and also increases and changes in the accumulation-

consumption ratio, are interrelated and exert a definite influence on each other, which at times may even lead to the emergence of certain contradictions between them. Up to a certain time, for instance, it was impossible to develop both the heavy and light industries at the same speed, and the Soviet Union was forced to develop heavy industry at a high rate and restrain the development of light industry. Now a highly developed heavy industry forms the basis for a rapid growth in the production of consumer goods. Although the rapid development of heavy industry must be continued, it is now paralleled by a similarly rapid advance in the development of light industry and agriculture.

To overcome the lag in agriculture, the state diverted substantial funds to farming which would otherwise have gone to industry. But it would have been impossible to develop the food and other light industries and raise the people's welfare without increasing the output of food-stuffs and agricultural raw materials. In turn, the increase in agricultural production is accompanied by a rise in labour productivity and industrial output.

Let us take another example. The expansion of housing construction, though decreasing production accumulations, betters the living conditions of the labour force and is of economic importance because it raises the labour productivity of factory and office workers and collective farmers. By building housing, factories are able to enlist more workers and to ensure the fuller use of productive capacities. Housing construction is often no less important to the engineering industry than the erection of production buildings.

How does one plan economic growth rates? The dependence of these rates on many complicated and intertwining circumstances and their links with complex economic processes makes it impossible to use a concrete mathematical formula to which the planner could turn for guidance. Every plan is a new and important job of research and cannot merely be worked out according to set formulas.

The fact that the basic targets of the economic plan are determined by Party and Government policy and cannot be reduced to simple formulas should not be regarded as an unwillingness on the part of planners to use mathemat-

ical methods. Many complicated calculations in the plan have to be worked out on such a vast scale that they can only be rationalised with the help of mathematical techniques.

Plans for material and technical supply, variants of the effectiveness of capital works, variants for the location of enterprises, total labour expenditure for the production of definite types of articles, price variants and many other such calculations should also be made by computers, and programmes utilising special methods of economic mathematics should be worked out for these calculations. The existing methods of calculation should be changed to enable data to be fed into a computer. The net result would be to strengthen the quantitative aspect of economic analysis.

But it should not be forgotten that, though wide vistas are being opened up for economic computations, the general problems of planning and planning policy demand a thorough study of the economic laws, a sound knowledge and relentless implementation of Party policy, and the participation of millions of working people in the drawing up and implementing of plans, and so on.

Since the dynamics of the development of the socialist productive forces and production relations cannot be embraced by the statistical-mathematical formulas for the extrapolation of growth rates, they should not be utilised in the planning of socialist economic growth rates. This is conclusively proved by a comparison of the rates in the plan with those of the preceding (base) period (see table on p. 279).

The experience gained in drawing up the five-year plans and also the seven-year plan shows that the planners' task will never be reduced to a mere extrapolation of the achieved level. In every plan the problem of rates has to be solved individually. This precludes any set pattern in defining economic growth rates and necessitates fresh conditions for economic development in every single instance. Every period has its own optimal growth rates which are, to a large extent, dependent on objective laws and the prevailing political situation. Thus, when the Soviet Union was the only socialist country and its level of economic development was far too low, the plans provided for in-

Industrial Growth Rates in the Base and Planned Periods

	Base period	Planned period
Second Five-Year Plan*	22	16.5
Third Five-Year Plan*	17.1	14.0
Fourth Five-Year Plan*	—	10.0
Fifth Five-Year Plan*	13.6	12.0
Seven-Year Plan*	11.5	8.6
Plan for 1957	11.0	7.1
" 1958	10.0	7.6
" 1959	10.0	7.7
" 1960	11.0	8.1
" 1961	10.0	8.8
" 1962	9.0	8.1

* Average yearly growth rates.

tensive growth rates. Now the rates are high, but not so high as to overstrain the economy.

Production growth rates are dependent on many factors, chief among them being: economic requirements, the rate of productive accumulation of the national income, the effectiveness of capital investments and new technology, the structure of production and capital investments, the increase in the able-bodied population and the rise in labour productivity, the incidence of natural resources, the level of scientific development and the extent to which scientific achievements are used in the economy.

An exact computation of the national income necessitates a plan for all material production, while the rational utilisation of accumulation calls for a detailed analysis of the composition of society's accumulated wealth. In the plan, accumulations show in different forms—the state budget investments in fixed, circulating and reserve assets; State Bank investments in the modernisation of enterprises and into their circulating assets; the capital investments of enterprises from their own resources; the capital investments of collective farms into collective-farm construction (i.e., the purchases of machines and fertilisers); and the savings of the population (individual housing construction, acquisition of property). To plan accumulations and to

Index for Different Types of Accumulations
(1928-32=100)

	Capital investment according to state plan	Non-centralised investments	Investments of collective farms	Investments of urban population in housing construction
1933-37* . . .	191	211	264	66
1939-40* . . .	274	256	503	142
1941-45* . . .	211	89	442	124
1946-50* . . .	444	389	840	399
1951-55* . . .	850	867	1,795	509
1956	1,150	2,211	3,027	754
1957	1,274	2,878	2,933	885
1958	1,374	4,489	3,787	1,607
1959	1,520	5,289	4,707	1,784
1960	1,725	5,500	4,300	1,550
1962	2,060	4,350	4,350	1,210

* Average yearly data.

ascertain their influence on the diverse aspects of economic life, we must consider the various types of accumulations enumerated above—their sources, designation and specific features of their dynamics. Let us look at the above data.

We notice that the growth of the various types of accumulations does not coincide with the growth of the national income and its accumulated share. In 1958, for example, the Soviet national income and its accumulated share grew by nine per cent while state capital investments grew by 13.6 per cent and the capital investments of collective farms by 29 per cent. In 1959 the growth of the national income and its accumulation was eight per cent, while state capital investments grew by 12 per cent and those of the collective farms by 25 per cent.

For a variety of reasons, the dynamics of state capital investments generally do not coincide with the dynamics of the accumulated share of the national income. The sum total of the depreciation funds, which form part of the capital investments, differs from year to year. The state fund for the accumulation of national income is unequally distributed between investments in fixed and circulating assets; similarly, the sums earmarked for reserves, insur-

ance and stocks differ from year to year. To determine the volume of state capital investments it is necessary to know what sums are needed by the economy for investments in fixed assets, and also to have exact data on financial and material supplies for capital works.

The capital investments of collective farms are of a very specific nature. These investments are financed from the incomes of agricultural artels, which they themselves distribute. The planning bodies draw up balance sheets of the incomes and expenditures of collective farms, collect data from the planning organisations on major construction jobs projected by the collective farms and determine the range of equipment, timber and other building materials to be supplied to them for the expansion of their fixed assets.

It is even more difficult to make provision in the plan for the effective demand. This involves a study of the population's income and expenditure, the budgets of factory and office workers and collective farmers, the demand for consumer durables and a computation of rational standards of consumption.

The planning of consumption is a complex problem which cannot be solved without a deep study of all the factors on which consumption depends. It should also be remembered that these factors change constantly and that solutions which may suffice at one stage of economic development may be entirely insufficient at another.

The increment in production depends not only on the magnitude but also on the effectiveness of capital investments. The improvement of capital construction, i.e., the reduction in the time required for the completion of building jobs, the reduction in their cost, the increased construction of projects which recoup outlays in the shortest possible time, the rational distribution of investments among the various branches, etc.—all accelerate the acceptance of productive assets, improve their structure and accelerate the rate at which socialist production develops.

Capital investments into new equipment are particularly effective since the rate of development is accelerated without a decrease in the rate of accumulation. The Soviet Union has proved from experience that the high growth rates of socialist economy are inseparably linked with the introduc-

Growth Rates of Productive Assets, National Income,
Labour Productivity and Gross Output
of Industry (1940=100)

	1950	1955	1960
Fixed productive assets in the national economy	134	220	313
National income	164	281	435
Relationship of the growth rate of the fixed assets to that of the national income (index of growth of fixed assets=1)	1.22	1.28	1.39
Fixed productive assets in industry . .	154	264	427
Gross industrial output	173	320	524
Relationship of the growth rate of the assets to that of gross industrial output (index of the growth of fixed industrial assets=1)	1.12	1.22	1.23
Productive personnel in industry . . .	129	158	181
Relationship of the growth rate of fixed assets to that of productive personnel in industry (index of growth of productive personnel in industry=1)	1.19	1.67	2.35
Labour productivity in industry . . .	137	198	296

tion of new equipment. This is easily seen from the above table.

The national income grows quicker than the productive assets in the economy, while the industrial output grows quicker than the fixed productive assets in industry. This proves that the fixed assets are being used effectively and that their technical level is steadily growing. Since under socialism the fixed assets are utilised regularly and fully, the increase in the effectiveness of the fixed assets must be due mainly to the introduction of new equipment. The table shows that labour productivity grows even quicker than the index of fixed productive assets available per worker. This indicates that the higher growth rate for labour productivity is due also to better organisation of labour and the increase in skilled workers. The overall effect on the development rates is similar to that exerted by the increased efficiency of the productive assets.

It should be noted that during the past few years there has been a certain drop in the output per unit of fixed productive assets and also in the growth rate of labour productivity. This makes it even more important to make production more efficient.

One of the tasks of the planning bodies is to investigate the effect of new equipment in the period covered by the plan—an investigation which should take into account both the quantity and the nature of the new equipment. At the time the Second Five-Year Plan was being drafted, V. V. Kuibyshev said that “the five-year plan for industrial development will be realistic only if it bases itself on technical reconstruction”. Since the war it has been restated that the further technical equipment of industry, agriculture, construction and transport is one of the most important economic tasks facing the Soviet Union.

The war and the ensuing period of restoration slowed down technical progress. As a result a number of industries began to lag behind, especially in comparison with the United States which had managed to renew its fixed assets during the war and the post-war years. Planners had to focus their attention on introducing up-to-date equipment.

In addition to targets for the production of new machines and materials and the development of progressive processing techniques, post-war economic plans contained programmes for the mechanisation and automation of production. New plans were drawn up for the utilisation of up-to-date machinery, for the expansion of output and capacities in existing enterprises and for the modernisation of equipment.

Technical progress exerts an enormous influence on the rate of economic development. Under the Seven-Year Plan, for example, the introduction of up-to-date machinery was responsible for 75 per cent of the total increase in industrial labour productivity. This makes it particularly important to improve the methods for computing the influence exerted by technical progress on production growth rates.

It is essentially a problem of finding a means of computing the degree by which the growth rates of production and labour productivity should outstrip the growth rates of the fixed productive assets. The projects and estimates for the building and reconstruction of a number

of enterprises are now available and should make it possible to establish all the unknown quantities—the increase in productive assets, output and labour productivity. In long-term planning, however, these data can be used for only a limited number of enterprises, new calculations will have to be made for the other enterprises. Planners will not be able to utilise the data valid for existing factories because these figures are rapidly becoming obsolete and because eventually all existing enterprises will be completely re-equipped. Calculating the influence of new equipment is no easy task, but it is imperative.

The planning bodies are already experienced in computing the increase in labour productivity according to certain given factors. The principal measures to be taken into account in planning the economy of the labour force are:

- the introduction of increased capacity rolling mills, coal combines, machine sets, installations, apparatus and devices, multipositional automatic and semi-automatic lathes, foundry, forge and press and other equipment;

- modernisation of existing equipment;

- increase in the machine pool, lorry park, and transport facilities;

- introduction of new automatic lines and shops;

- mechanisation of labour-consuming jobs and automation of the control of production processes and their supervision;

- introduction of new equipment in various sectors;

- introduction of various technical novelties for a more rational utilisation of existing capacities, etc.

These computations serve to establish the relation between higher output by workers and the equipment available to labour. We believe that experience in drawing up such computations may be of great value in establishing the efficiency of progressive technical innovations and of their influence on the production growth rates in the economy as a whole and in various branches.

The working out of a hypothesis for the development of a branch involves major research with the participation of a large body of people managing the branch. The state provides them with all necessary data, giving details of the national economy and of the branch in question,

results of theoretical and practical research and the results of advanced experience.

The elaboration of a plan is based on expert appraisals (technical and economic computations) which are the result of a comprehensive objective analysis of available resources and of the laws of economic development. The production plan of so complicated a branch as agriculture, for example, is based on thorough agronomic and technical computations (land balance, provision for harvest yield increases, power balance and balance of agricultural machines, herd turnover, fodder balance, etc.), economic computations (balance of agricultural output, plans for labour, income and expenditures of collective farms, nominal and real income of collective farmers, etc.). Since the plan is concerned with the fundamental interests of the state and of tens of millions of collective farmers and state-farm workers, the expert appraisal of the potentialities for agricultural development must pay special attention to Party and Government agrarian policy.

Being guided by the general tasks facing the country, planners study the available and potential resources in this or that branch, and the laws governing its development. These laws are based on earlier data and care is taken to exclude all elements of chance. The scale (level) of development of the branch during the period covered by the plan is a first approximation. Taking account of the requirements of the Soviet state and of domestic and foreign experience, planning experts established that it was possible to increase iron production by 2-2.5 million tons a year in the pre-war years and by 3.6-4.4 million tons a year during the Seven-Year Plan period.

At the decisive stages all aspects of the plan are simultaneously developed—general economic directives and such for the development of separate branches are being translated into terms of figures. But at the same time it is possible, and from our point of view even desirable, to elaborate preliminary targets for the development of the key branches. Obviously, there cannot be equally favourable conditions for the development of all branches. There is always a certain limit to the resources available at any given moment and this precludes a simultaneous solution of all the problems facing the economy. An order of priority

must therefore be established for the solution of these tasks and this means that priority has to be given to the development of some branches, while the development of others is restrained.

Experience shows that the projects drawn up for the development of the separate branches usually stipulate 1.5 to two times more capital investments than are actually available for that purpose. Corrections are made in the first drafts when the development of all branches is co-ordinated on the basis of balances, which clarify interbranch links. This means that several preliminary variants of the plan have to be worked out.

Practical planning experience indicates that it is profitable to begin with the rates for large and complex economic branches, and to work out plans for the enterprises in that branch on the basis of these estimates. Realistic plans for overall industrial growth rates should be based on plans for the development of ferrous and non-ferrous metal industries, coal and oil industry, power engineering and machine-building, the food and other light industries and the principal enterprises of the above industries.

Krzhizhanovsky rightly declared that in planning there might be speculative and far-fetched abstractions based on far too general average figures. Planning by branches precludes such abstractions and helps to draw up technically and economically reliable plans. In solving general economic questions the specifics of a separate branch are sometimes overlooked. If in planning industrial growth rates attention is given only to general economic questions, planned rates may easily lose touch with reality.

In Soviet planning practice the gross output of industry and agriculture is planned as the sum total of the output of separate branches. The output volume and the production growth rates thus received are then analysed, and, if necessary, corrections are made in the total output volume and in the output volumes of the separate branches. The total output volume is rounded off and enters the plan as a target. In the post-war plans, for example, the target for the increase in industrial output was a few per cent lower than the sum total output planned for the separate branches. This creates a certain reserve in the plan and provides for possible errors.

Another difficult factor to foresee in planning economic development is the production activity of the working people which is becoming more and more intense under socialism and especially in the transition period to communism. This same fact was pointed out in 1923 by Dzerzhinsky who said that political and moral factors should always be taken into account in planning.

Analysing Gosplan's methods, Krzhizhanovsky also emphasised their importance.

It is absolutely essential to take these factors into account when planning economic growth rates. And this is further proof that planning is a political activity which cannot be indifferent to reality, to the possibility of a revolutionary change of that reality or to the energy and initiative of the masses. Planning repudiates objectivism as decisively as it repudiates the subjectivistic inventions of voluntarists.

Planning Proportions

The theory of extended socialist reproduction, the study of the law of planned, balanced development, and analyses of the fulfilment of plans enable us to establish the basic proportions in the national economy and their trends of development.

The projected growth rates for industry, agriculture, and transport, and a study of established relations, reserves and bottlenecks give us a more or less concrete picture of future proportions, i.e., of the proportions in the draft plan. As long as our concept of proportions is based only on expert appraisals of possible growth rates for the various economic branches and co-ordination between them is merely superficial and there is no exact computation of the resources in the economy, all appraisals can be no more than rough approximations. The planning by branches must be supplemented with detailed synoptic data. Only this will enable us to draw up a plan in which all parts are mutually co-ordinated which provides for the balanced progress of the whole economy. Factual data on changes in the basic economic proportions show in what direction social and economic relations (expressed by the law of planned, balanced development) are evolving. They also

show how economic proportions are made to match the fundamental aim of socialist production, demonstrate the true nature of some of the decisive economic relations in planned, extended socialist reproduction and indicate the bottlenecks and partial disproportions existing at the given stage of economic development.

To create the material prerequisites for extended reproduction and for a growth in labour productivity, it is necessary for Department I, in particular the production of the instruments of labour, to develop at higher rates than Department II, i.e., for the growth of heavy industry to outstrip the growth of light industry. It follows that the process of socialist industrialisation is an activity of the Soviet state aimed at observing the necessary proportions between the production of the means of production and the production of consumer goods in conditions of rapid overall industrial development.

The socialist economic system is stabilised by the rapid development of heavy industry. Typical of the Soviet Union is the constant increase in the share of the production of means of production as indicated by the following data:

**Share of the Departments of Social Production
in the Gross Output of Soviet Economy and Industry**
(per cent)

	Economy		Industry	
	Department I	Department II	Group A	Group B
1913	47	53	33.3	66.7
1927-28	49	51	39.5	60.5
1932	54	46	53.4	46.6
1953	57	43	69.2	30.8
1957	60	40	71.2	28.8

The above figures showing the share of Department I in the total output of the economy are approximations, but they illustrate the tendency for higher growth rates in that Department. Socialisation along socialist lines develops

harmoniously. Under capitalism the growth of the organic composition of capital, the narrow limits of the market and anarchy of production lead to the hypertrophy of capital invested in Department I and to general overproduction. Conversely, under socialism the rapid growth of Department I is controlled according to plan.

To be able to ensure high growth rates for socialist reproduction, it is necessary to establish a definite relationship between accumulation and consumption. Even though accumulation and consumption limit each other, in the Soviet Union they grow simultaneously and are optimally combined. This can be seen from the following table:

**National Income of the Soviet Union
and Its Distribution**
(per cent)

	Dynamics of national income	Distribution into	
		accumulation	consumption
1928	100	18.9	81.1
1932	182	26.9	73.1
1937	386	26.4	73.6
1950	843	26.0	74.0
1958	1,930	about 25.0	75.0
1959	2,076	—	—
1962	2,345	28	72

During the First Five-Year Plan period the national income grew by 82 per cent, consumption by 64 per cent, and accumulation by 150 per cent. Industrialisation made it necessary to set aside a large share of the national income for accumulation; however, in later years consumption and accumulation began to grow at approximately equal rates. Between 1933 and 1937 the national income grew by 110 per cent, accumulation by 107 per cent, and consumption by 113 per cent. In the Fifth Five-Year Plan period the national income grew by 68 per cent, accumulation by 82 per cent and consumption by 64 per cent.

By maintaining a high level of accumulation the Soviet Union creates conditions for the growth of consumption in

later years. Under capitalism the accumulations of the exploiting class limit the consumption of the working people. Under socialism accumulation is attended by a growth of consumption and is used not in the interests of an exploiting minority, but in the interests of society as a whole.

One of the basic proportions in the socialist economic system is the relation between industry and agriculture. Under socialism there must be perfect combination of industrial and agricultural production. By nationalising the land, expropriating capitalists and landowners, developing socialist industry and carrying out the collectivisation of peasant households, the socialist revolution eliminates the disparity between town and country, removes the antagonistic relations between them and helps overcome agriculture's lag behind industry.

Under bourgeois system, Lenin noted, "agriculture lags behind industry in development; this is a feature of *all* capitalist countries constituting one of the most profound causes of disproportion between the various branches of the economy, of crises and soaring prices."* Under socialism new relations emerge between town and country: exploitation is replaced by co-operation and mutual assistance, agriculture follows in the footsteps of industry along the road to progress. The co-ordinated development of industry and agriculture and the firm alliance of the working class with the peasantry are an indispensable condition for extended socialist reproduction.

Agricultural development is one of the most acute and complicated problems facing socialist economy. Any analysis of the relationship between industry and agriculture must be approached from a social standpoint. When Gosplan was in its earliest days Groman spoke of an "empirical law", according to which a stable proportion should be maintained between the volume of commodities produced by industry and agriculture (63:37). But in the pre-revolutionary period and in the first years of Soviet power these magnitudes reflected fundamentally different socio-economic conditions. This "law" was formulated without any

* Lenin, *Collected Works*, Vol. 22, p. 94.

consideration for social changes, and for that reason was no more than a meaningless jumble of figures.

Planning the proportions between industry and agriculture was especially difficult because of the unbalanced economic structure inherited from the tsarist government. It took a long time to make the necessary changes in the country's economic structure. The planning bodies mapped out a steady course for a co-ordinated development of industry and agriculture visible in the rates planned for industrial and agricultural development.

Percentage Increase in Output During
Planned Period

	Industry	Agriculture
First Five-Year Plan	236	155
Second Five-Year Plan	214	200
Third Five-Year Plan	192	152
Fourth Five-Year Plan*	148	127
Sixth Five-Year Plan	165	170
Plan for 1958	107.6	117
Seven-Year Plan	180	170

* Compared with pre-war level.

Even though pre-war plans envisaged higher growth rates for industry than for agriculture, from the Second Five-Year Plan on the difference became comparatively small. This was due to the fact that the targets for the rapid advance of industry in the First Five-Year Plan had been achieved, while those for the expansion of agricultural output had not. In fact, in 1932 the gross agricultural output was 14 per cent lower than it had been at the beginning of the five-year plan.

The reorganisation and mechanisation of agriculture created conditions for an advance in collective- and state-farm production during the Second Five-Year Plan period. In 1940, the output of crop and animal farming reached the pre-war level and the next task was to eliminate the lag of agricultural growth rates behind those of industry. The directives of the Sixth Five-Year Plan and the plan

for 1958 envisaged higher growth rates for agriculture than for industry.

Between 1950 and 1953 the average yearly industrial growth rate was 13 per cent and that for agriculture 1.6 per cent. Agriculture lagged far behind industry. The measures taken by the Party to raise agriculture changed the situation—between 1954 and 1959 the average yearly growth rate in agriculture climbed to seven per cent, that for industry fell to 11.3 per cent.

The economic relations shown above prove conclusively that the proportions in Soviet economy arising out of the socialist mode of production are objective and are consciously maintained by society. These proportions must be maintained to ensure the uninterrupted development of socialist economy and to avoid economic crises. Strict account should be taken of the objective trends of development of socialist proportionality when plans are drawn up.

All economic links must be considered in drafting these proportions and those of special importance to the economy must be computed with the greatest possible accuracy. In computing the proportional development of the raw material branches, plans should provide for reserves to compensate for any shortages arising from the overfulfilment of the plan by the manufacturing branches.

Gosplan's instructions on the drawing up of the Second Five-Year Plan said: "the ratio between the separate elements of the plan must ensure its harmonious overfulfilment. This means that the necessary prerequisites must be created by the plan itself. Geological surveying and hydrological research, for instance, must outstrip the development of the extractive industries and of agriculture, so as to have a reserve of known resources, which could be utilised if an overfulfilment by the relevant industries were to create a shortage. Geodesic work should be arranged so that detailed maps and data for the key regions are available before geological work is started. The capacity of machine-building works should be sufficient for a rapid expansion of transport, should an overfulfilment in the plans of the extractive or processing industries, or agriculture make this necessary. Railway transport, too, should have reserves to cope with seasonal overloads, and also to

transport raw materials and the output of economic branches overfulfilling their plans."

Soviet experience in economic management has resulted in the elaboration of the balance-sheet method of planning—a specific method of studying economic proportions and of ensuring that these be observed in plans. This method helps to analyse the proportions shaping in the economy, to measure the dependence of one branch on the other, and to determine concrete targets which would ensure the necessary proportionality between the various branches.

Balances (or balance-sheets) are used to study economic proportions. The extensive system of balances used in planning covers the diverse links between the various aspects of social production and between the economic branches. Thus the balance of the national economy reflects general proportions; the balance of the national income serves to establish the proper proportion between accumulation and consumption; the balance of the money income and expenditure of the population correlates the commodity supply with the effective demand, etc.

The balances of separate products reflect specific proportions between the separate industries and the economy at large. The links of the coal industry with metallurgy, power stations, railways and other fuel consumers are established by drawing up the balance of coal. The proportions in the development of metallurgy, machine-building, transport and construction are determined by drawing up balances of rolled metal, pig iron and steel. Such balances are drawn up for every branch or for every product of mass consumption.

The planning of growth rates by the planning bodies consists in fixing definite levels for the development of the economy and its branches; balances are drawn up to see that these levels are mutually co-ordinated and what reserves are set aside for any contingencies arising from an overfulfilment of the plan by separate branches, or due to hitches in the execution of adopted programmes.

Synoptic balances define and measure general economic proportions. The financial and budgetary balances and the labour power balance are also synoptic. Material balances are very important in planning technical and economic proportions in the separate branches and the proportions between them. These are the balances of ferrous and non-

ferrous metals, electric power, fuel (in terms of conventional fuel in general, and separately for every type of fuel), equipment (all equipment in value terms and for the principal types in physical terms), building materials and timber, the key types of mined chemical raw materials, principal chemicals and chemical fertilisers, key types of agricultural raw materials, key types of industrial goods and foods, the cereal fodder balance, the freight balance (transport balance) and several others. Many balances are broken down according to regions to facilitate the rational distribution of enterprises and to ensure greater efficiency in the transport system.

The merits of the balance-sheet method of planning were immediately recognised. In the electrification plan balances were used to substantiate the main targets. Lenin noted that in the GOELRO plan "we have a material and a financial (gold rubles) balance-sheet for electrification (about 370 million working days, so many barrels of cement, so many bricks, poods of iron, copper, and other things; turbine generator capacities, etc.). It envisages ('at a very rough estimate') an 80 per cent increase in manufacturing, and 80-100 per cent in extracting industry over the next ten years."*

The planning of proportions and the drawing up of balances call for a scientific approach and serious research. Bukharin's balance of building materials and the no less harmful balance of cereal fodder, drawn up in the twenties by bourgeois restorers, show that balances based on unscientific premises become weapons against socialist plans and tend to disorganise planned economy.

To be sound, economic balances must be based on the Marxist-Leninist theory of reproduction and must proceed from the general line of the Communist Party. Take, for example, the proportions between industry and agriculture, and the balances showing the concrete links between them. It would be impossible to approach a study of these proportions, let alone plan them, without reference to the Marxist-Leninist theory on the links between town and country, the co-operation of peasant households and the role of socialist industrialisation in transforming agricul-

* Lenin, *Collected Works*, Vol. 32, p. 139.

tural production or without a clear idea of the nature of collective farm-co-operative property and the ways of developing it. The economic links between industry and agriculture differ at various historical periods. The organisation and the methods used for the elaboration of balances depend on these links. The reorganisation of the machine and tractor stations, for example, and the resultant changes in the procurement of agricultural products made in 1958, posed new problems to the planners of the cereal fodder balance. Payment in kind for work performed by the machine and tractor stations had to be excluded from state grain resources and plans provided for state purchases as the only source of grain.

The planning of proportions by the balance-sheet method makes it possible to establish optimal proportions in the economy, to do away with bottlenecks and disproportions and to ensure a rapid economic growth. In all socialist countries balances promote the active, purposive planning of proportions.

At present the planning of proportions in the Soviet economy is subordinated to the task of full-scale construction of a communist society. The planning of optimal proportions is more important now than ever before. The July (1960) Plenary Meeting of the Central Committee of the C.P.S.U. proposed that the practice of working out balances in both physical and value terms be more widely applied, and particularly in the case of equipment balances.

Technical progress has wrought radical changes in some of the key balances. Formerly, the fuel balance was based principally on coal, now it relies on cheaper and technically more progressive power sources such as oil and gas. This means that the fuel industry will develop along new lines and that the techniques of fuel utilisation will change. In connection with these changes it has become extremely important to work out a single fuel and power balance, ensuring the most rational utilisation of all power resources.

The measures taken by the Party to accelerate the development of the chemical industry will promote the introduction of new chemical products. Plastics, man-made fibres, leather and fur, and other chemical products are replacing ferrous and non-ferrous metals, wood and pro-

ducts made from natural agricultural raw materials, etc. As more balances change, it becomes necessary to determine new consumers and fix new standards of expenditure of materials.

The balance-sheet method is constantly improving. The years of experience accumulated by the planning bodies has helped to work out a reliable methodology and methods for the drawing up of material and synoptic balances. However, in spite of the considerable success in the balance-sheet method scored by planners and economists in the Soviet Union and in the socialist countries, many problems are still clamouring for a solution.

The transition to a higher phase of communism calls for the re-equipment of labour. This means that it is necessary to determine the required amount of means of automation and mechanisation, that is, to draw up a relevant balance. This balance, we believe, is essential in determining what orders will be placed by the engineering industry and what economic effect will be produced by the introduction of comprehensive mechanisation and automation. Unfortunately balances of the means of automation and mechanisation have as yet not been drawn up.

Even during the transition period to communism the growing requirements of the people are being more fully satisfied, the standards of consumption are outstripping those of the most highly developed capitalist countries and changes are being made in the structure of consumption. This means that rational standards of consumption must be worked out for the long-term planning of the structure and size of consumption. Successes have already been achieved in this field. Standards have been established for the consumption of food, clothes, and footwear, and will greatly facilitate the elaboration of relevant balances. But it is as yet too early to be sure that these standards are optimal. They need to be checked by experiment and widely discussed and in our opinion should become more flexible, i.e., should provide for the substitution of certain products by others.

Modern conditions call for a revision of the balance of the population's income and expenditure. This balance should make it possible to study the demand in town and country. Up to now this balance merely correlated the income

of the population with the retail trade turnover in sum totals without showing the size of the trade turnover for town and country. Some differentiation must be made in the balance between the incomes of the urban and the rural population.

It can also be argued that such balancing is purely formal since it ignores the structure of the demand. The fulfilment of the money income and expenditure balance may bring about a situation where the sum totals of the population's expenditure on commodities is equal to the retail trade turnover, while in reality there is no balance, since commodities offered to the public do not always match the demand, i.e., more of one type of product is manufactured than the population needs, while others are in short supply. This means that (at least in long-term plans) the conformity of the effective demand with commodity stocks should be shown both in toto and separately for key commodities groups.

The economic links of the states entering the world socialist economic system are reflected in the plans and balances of all socialist countries. To improve balancing a thorough study should be made of the standards of productive and personal consumption in the socialist countries. This study is particularly important for the drafting of long-term plans. A knowledge of the consumption standards and levels of development is necessary to plan the more or less simultaneous transition of all socialist countries to a higher stage of communism.

We have shown that every synoptic balance is elaborated according to its own special method. In the case of material balances, however, there are certain common methods of elaboration. Every balance consists of two sections: income and expenditure. The first section of the balance shows all the resources (production, reserves, imports), the second—all expenditure incurred during the period covered by the plan (for production and construction, personal consumption, export, and the creation of reserves). All these items are computed on a national scale for the Union republics, ministries, and departments. This helps draw up a concrete plan for material and technical supplies, which is then broken down by departments and identifies the bodies responsible for implementing the particular tasks.

Since the volume of production of definite types of output, constituting the main source of the resources in the balance, is fixed when the outputs of the relevant branches of industry and agriculture are planned, the economists drawing up balances are concerned primarily with expenditure. The estimates for production and personal consumption are based on standards. Standards are therefore the *sine qua non* of balances.

Standards for the expenditure of materials in industry and construction are not immutable. Technical progress and improvements in the organisation of production change these standards, and should not be ignored, especially in long-term planning. This can be seen in the table below.

Many specialists participate in working out standards of material expenditures. Standards taking into account the progressive trends of production are worked out with their help. In the Seven-Year Plan, for example, provision was made for improvements in the processing of metals and for changes in the structure of machine-building. The share of metal consumption was accordingly decreased by an average of 25 per cent.

Realistic balances cannot be drawn up without technically well-founded standards of expenditure. Until recently this rating was one of the weakest links in planning. The

Standards of Material Expenditure in Some Branches of Industry

	1940	1950	1955
Iron ore per ton of open hearth pig iron (tons)	1.804	1.725	1.767
Coke per ton of open hearth pig iron (tons)	0.988	0.935	0.837
Conditional fuel per 1 kwh of electric power (grams) . .	597	542	479
Yield of cotton fibre from raw cotton (per cent) . . .	32.6	34.0	34.3
Yield of sugar (percentage of processed beet)	12.69	14.05	13.73

July (1960) Plenary Meeting of the Central Committee of the C.P.S.U. pointed out that a great number of previously valid standards did not correspond to the modern level of production and did not make for economy. The Plenary Meeting instructed the relevant bodies to improve their system of rating.

The expenditure section of the balance illustrates the growing economic requirements for the relevant product and thus determines the level production should strive to achieve. Growing requirements stimulate production to develop new resources. Where it is impossible to satisfy all requirements in the planned period only a part is satisfied under the current plan and the rest is fulfilled at some future date. The balance must be based on realistic resources. It is easy to achieve a theoretical balance of resources and requirements with unrealistically high production plans, but this obviously does great harm to the economy.

The planning of proportions (balances) and the planning of rates (levels) are closely interlinked. Just as the production growths cannot be fixed without first making sure that there are sufficient material and technical supplies, so balances cannot be drafted without carefully elaborated production plans. Only in this way can a true balance be established, i.e., the income section made equal to the expenditure section.

Balances should provide reserves for any contingencies arising out of deviations from the plan. In 1956-57 the planning bodies censured the lack of flexibility in balances and supply plans, and the inadequate supply of materials in a number of production and construction undertakings.

It should be noted that at one time Gosplan favoured "rigid" planning. In 1932 Gosplan declared that "the aim of . . . balance-sheets is not an exact balancing of plans, but a check on the accuracy of established ratios in the development of the productive forces in the branch or region in question". This approach can be explained by the fact that at that time funds were being redistributed to finance industrialisation and that People's Commissariats and departments, who did most of the balancing, were exaggerating their requirements in an attempt to create unjustifiably large reserves. The position changed in 1934 when Gosplan was charged with the drawing up of balances and

plans for the distribution of resources. Under the new conditions the planning bodies were called upon to fully satisfy current requirements and also to provide for state reserves and production stocks.

The excessive "rigidity" in the balances and supply plans was thus eliminated. Like all other plans, balances and supply plans can be adjusted in the course of their execution since targets in the balances and supply plans are usually high and make great demands on the efforts and initiative of the people concerned with their implementation.

Balancing is an arduous and difficult job. In drafting the economic plan, the central and local planning bodies have to draw up tens of thousands of other balances, and a whole army of engineers, technicians, economists, statisticians and accountants participate in their elaboration. Obviously it would be extremely profitable to rationalise the drawing up of balances and material supply plans. This could be done by centralising the work connected with rating and by introducing new computing techniques.

The centralised fixing of standards would obviate duplication and help to draw up better standards, especially economic standards of expenditure, taking account of the consumption in the basic and allied branches (standards received by the working out of interbranch balances drawn up in columns and lines). With well-founded standards, Gosplan and the Committee for Material and Technical Supplies could use electronic computers to calculate many variants for material balances and distribution plans in a very short time.

Any work connected with the elaboration of a method for fixing conclusive standards and the computerisation of supply plans will more than pay for itself.

Unified Plan

In 1920 Lenin said that "the plans of the various branches of production must be soundly co-ordinated, and linked up so as to constitute the single economic plan we stand in such great need of,"* and ever since Soviet plan-

* Lenin, *Collected Works*, Vol. 31, p. 511.

ning has been aimed at drawing up a unified plan. This means that the planning of growth rates for the separate economic branches and economic proportions are subordinated to the task of creating a single economic plan.

The unity of the economic plan is based on its unity of purpose and presupposes the co-ordinated development of the productive forces and production relations along the road to communism. With every passing plan this unity involves a higher stage of economic development, and the proportionality between production and the economic branches must correspond to the new stage. The objective interrelations between the level (rates) of development and the proportions are reflected in the organisation of planning, that is, in the planning of production growth rates and the relations between branches.

Some economists argue that the drawing up of a plan should begin with draft targets for production; others maintain that it should begin with the drawing up of balances. According to Gosplan the drafting of the 1941 plan was begun with a study of balance links. But, to examine balances, there have to be draft production targets. Besides, the drawing up of draft production targets involves the solution of fewer equations than the elaboration of a balance.

Work on the plan should start with a simultaneous consideration of all principal indices. There may be instances where balance links are of the greatest importance, but more often than not the plan hinges on the development of the separate economic branches. Plans are generally drawn up in the following manner: proceeding from general tasks, taking stock of all available resources and bearing in mind that the development of separate branches must be co-ordinated, the planners draw up a string of draft plan variants, each more acceptable than the preceding one, until an optimal variant has been elaborated. This last variant forms the unified economic plan.

This practice of drawing up several variants of the plan, in an attempt to find the optimal, has become known as the approximation by variants method. It was used in drawing up the First Five-Year Plan and all subsequent plans. Kuibyshev and Mezhlauk spoke of its great importance to planning and said that the approximation by

variants method helped to compute variants for economic studies of branch and regional plans and also for their final elaboration.

When working out different variants it is unnecessary to make a complete recalculation of the figures for all the branches and indices of the draft plan, adjustments are made only in fields connected with changes in the initial positions of the new variant. It is particularly important to check changes in the overall picture and in the decisive proportions, so as to be able to appraise the new variant of the plan from a political and economic standpoint. Care should be taken not to lose sight of the main considerations in an attempt to make unimportant computations accurate. The GOELRO plan said that at a certain stage in the elaboration of the plan "a clumsy axe becomes more important than a fine cutter". First a correct but general picture of the whole must be obtained, even if roughly knocked together with an axe. Only this guarantees that the finishing touches are not in vain.

Such, in a general and schematic outline, is the methodology of planning worked out by Soviet planners. Like every other scheme it oversimplifies things and fails to show that all processes of planning are interlinked and simultaneous. But this general outline is strictly necessary since discussions about the individual aspects of methodology and methods often leave the action of the planning mechanism as a whole in the shade, and may give rise to the erroneous idea that planning can be carried out even if there is no public ownership of the means of production. In reality, however, only public ownership provides for a survey of all economic processes and the conscious control of all of society's material resources.

The single economic plan must be an optimal plan. Fortunately, political and economic criteria exist which enable us to judge whether the economic plan is optimal or not. Politically, an optimal plan must conform to the general Party line and must become a powerful means for its realisation. Economically, an optimal plan must satisfy far more criteria. It would be extremely convenient if the economic criteria making the plan optimal were few.

The optimal plan must envisage high growth rates for production, accumulation and consumption. It must also

be based on new technology and provide for 1) the most effective utilisation of material, labour and financial resources; 2) a high growth rate of the labour productivity of social labour which exceeds the growth rate for consumption; 3) a decrease in production outlays; and 4) an improvement in the utilisation of productive capacities and circulating assets.

An optimal plan should ensure both the fulfilment of production tasks without excessive strain and the creation of economic reserves and stocks. While providing rational solutions for economic tasks in the period covered by the plan, an optimal plan should also create the prerequisites for extended reproduction in the next planned period. Capital construction jobs in industry, agriculture, transport, housing and social development must be under way to obviate stoppages or slow-downs in the introduction of productive capacities, housing, schools, hospitals, etc. There must also be mineral deposits ready to be mined, and pupils in educational institutions, who after graduation will meet the demand for specialists in the next planned period, etc.

The unified economic plan shows what has to be done and how to do it. The aim and the means, aspiration and achievement form an organic and composite whole. Drawing up the plan, the planning bodies must show the means by which it will be implemented. The realisation of the plan depends on the everyday work of Soviet society, which, however, complicates the measures outlined in the plan and gives them a political flavour. The unified economic plan becomes a means of organising social labour only if it expresses the unity of the economic policy, consistently carries out the policy of the Communist Party and if its fulfilment establishes correct interrelations between the different elements of the reproductive process.

In guiding the process of extended socialist reproduction the unified economic plan thoroughly co-ordinates the main elements of that process. This determines the great importance of the balance of the economy, or national economic balance, dealt with in the next chapter.

CHAPTER VI

BALANCE OF THE ECONOMY

Early Balances of the Economy

The problem of economic balances is one of the most important in the methodology of planning since a general economic balance is needed to plan general proportions. Attempts to draw up a fundamental balance of the Soviet economy were made as early as 1923-24. The authors attempted to give a general survey of Soviet economy, that is, tried to reveal both its level and structure, but their efforts ended in failure.

Groman and Bazarov made a number of suggestions on the elaboration of balances but their recommendations were unacceptable, because they approached the problem from a completely wrong angle. Groman, for instance, pretentiously demanded that the economic balance theory be recognised as a "supertheory", and that the theory of reproduction be incorporated in it. He also wanted the market and crises theory to become a part of the national economic and world economic balance theory. In looking at the balance problem "on a world scale", Groman's scheme completely omitted such "trifles" as Departments I and II of social production.

Soviet economic science has made considerable headway since the drafting of the first economic balance.

The economic balance for 1923-24 was based on unscientific theories and therefore contained many mistakes: the data was wrongly processed and grouped and the conclusions gave a distorted picture of the results of the reproduction process.

In the first place, the balance planners regarded the economy as an equilibrating system, and therefore considered that the balance should achieve an equilibrium between

the economic branches and the classes. "The problem of equilibrium," we read in the works of the Central Statistical Board, "is the most important problem in economics", while the balance of the economy aims at showing how "this economic equilibrium is achieved or disturbed". Basing their conclusions on balances over two years, the authors emphasise the stability of the system and of the prevailing relations, and stress the need to maintain this equilibrium.

The equilibrium theory has long since been exposed as reactionary for its attempts to prove the inviolability of capitalist elements in the economy and its opposition to the victory of the socialist elements. The balance for 1923-24 is additional proof that if planning and statistics are based on erroneous theories, they lead to conclusions which conflict with economic development. Such conclusions hinder rather than promote the work of economic executives. In 1923-24 and 1924-25 there was an absolute and relative growth in the socialist forces, but the balance concluded that it was necessary to maintain an equilibrium between the capitalist and socialist sectors. This meant that it did not support the progressive economic sector but to all intents and purposes supported and defended the capitalist sector, which, it asserted, was a necessary element of "stability" and "equilibrium".

Secondly, the authors of the 1923-24 balance regarded reproduction as a problem unconcerned with classes and the class struggle, and reduced the economic balance to a tabulated arrangement of material values. Professor L. Litoshenko, one of the principal methodologists of that balance, said that "considerations of statistical methodology do not make it necessary to single out the production of the separate categories of economic units"—an argument typical of reactionary bourgeois statistical methodology.

In an attempt to motivate their refusal to analyse the economy from a class position, the authors of the balance said that the products of the various sectors "fuse in the process of distribution. It is therefore impossible to trace the individual fate of each one through all sections of the balance". But in reality there is no such fusion. Just as distribution is a distribution among classes, reproduction is effected by separate classes. Therefore it cannot be replaced

by a distribution "according to the sections of the summary balance", which reflects the input and output of products divorced from classes and social sectors.

Thirdly, speaking about social problems, the authors of the 1923-24 balance gave a distorted appraisal of the alignment of class forces, underestimated the power of the socialist sector in an opportunist way, idealised peasant production and slurred over the contradictions between socialism and capitalism. With such unacceptable and biased views on the class structure in Soviet society, the authors sometimes used bourgeois economic categories instead of Marxist categories and therefore divided Soviet society into productive and non-productive classes. They asserted that the productive class was composed of workers, entrepreneurs, and small independent producers.

In a number of cases they refused to analyse the reproduction problem from a class point of view because "every member of society, be he a worker, merchant, peasant or pauper, has a certain yearly income, and in realising it, consumes material values". This idyllic conception of "joint labour" of workers and entrepreneurs, of working peasants and kulaks in production, and the tranquil harmony between all members of society—workers, peasants, merchants and paupers—in consumption could not fail to produce the wrong conclusions.

The authors of the balance advocated class peace and objected to the granting of distribution privileges to socialist elements. They said that "socialist forms and relations of economy will steadily . . . penetrate into capitalist forms and relations of economy, and socialist elements will expand in the womb of capitalist enterprises and finally conquer them". Mutual penetration was the only relation they recognised between the economic sectors, for any other would disturb the equilibrium by interfering with the interests of "some classes at the expense of others . . . and this would be tantamount to upsetting the ratio between production and the distribution corresponding to it".

The project for the 1923-24 balance reflected the anti-Marxist views of its authors. It was broken down as follows: the subject—agriculture, industry, construction and the sum total for all branches; and the predicate—receipt of products by the economy, distribution of products in the

economy. The section "Receipts of Products" is accounted for the gross output and imports; the section "Distribution of Products" took stock of the productive consumption in the different branches of the economy, the consumption of the rural and urban population and exports and stocks.

In other words, the balance was a record of production and consumption, irrespective of social sectors and classes, or to quote the authors, a record "of the circulation of material values consumed in one way or another during the year under review".

In this respect the 1923-24 balance resembled the balances being drawn up by bourgeois statisticians and economists. The bourgeois press has recently made a great fuss about summary balances drawn up in columns and lines, but most of them are even less reliable and detailed than the first Soviet balance.

In spite of our criticism, the 1923-24 balance did provide some data on Soviet reproduction at the end of the restoration period.

The table on page 308, showing the gross output of the various branches and the national income, is based on this balance. All data on the value and physical structure of the gross national product are either approximations, computed according to indirect indices, or else the indices of one branch which have been extended to others. The size of the gross and net output of trade seems doubtful. This figure includes the output manufactured in other branches and this makes it difficult to analyse production links.

One of the major defects of the table is that it does not enable us to establish the distribution of the product among the various social sectors.

Even so these data can be used to illustrate certain points. According to this table group A accounts for 37 per cent of the industrial output. In 1917 heavy industry accounted for a similar share, in 1913 it was 33 per cent. Department I accounted for almost 50 per cent of the aggregate social product in 1923-24. The share of Department I in the gross output of the economy was about 47 per cent in 1913 and 49 per cent in 1928.

The cost structure of the industrial output in the table is as follows: *c*—66 per cent, *v*—14 per cent and *m*—20 per cent. In 1925-26 in heavy industry *c* was equal to 45.8,

Production and Structure of Soviet Social Product
in 1923-24
(million rubles)

	Industry	Agriculture	Construction	Transport	Trade	Economy as a whole
Department I						
total	2,825	5,257	382	660	1,256	10,380
Including:						
c (constant capital)	1,380	1,935	210	210	75	3,810
v (variable capital)	513	2,980	128	390	150	4,161
m (surplus value) . .	932	342	44	60	1,031	2,409
Department II						
total	4,801	3,665	471	680	1,290	10,907
Including:						
c	3,634	1,335	252	220	70	5,511
v	535	2,045	157	416	161	3,314
m	632	285	62	44	1,059	2,082
All production	7,626	8,922	853	1,340	2,546	21,287
c	5,014	3,270	462	430	145	9,321
v	1,048	5,025	285	806	311	7,475
m	1,564	627	106	104	2,090	4,491
National income						
(v+m)	2,612	5,652	391	910	2,401	11,966

v to 24.5 and *m* to 29.7 per cent. In many respects these data are incomparable. In the first case they apply to all industry, in the second only to large-scale industry; in the first place the structure is computed according to "production prices", in the second—according to sales prices. If we deduct the excises (duties) from the production cost for 1925-26, *c* will become 54 per cent, *v*—29 per cent, and *m* will drop to 17 per cent.

The reproduction of the cost structure and the physical form of the social product are best analysed in connection

with its realisation. Figures on its realisation are even more conditional than data on the structure of production, since the authors of the balance did not devote much attention to the political and economic aspects of the realisation of output. But the figures deduced from general data on the exchange between branches, and the purchases and sales of the urban and rural population are able to throw light on some aspects of the realisation process.

The figures show that Department I of social production and especially group A in industry, were so backward that intensive extended reproduction was impossible. The output of Department I compensated for the means of production consumed in industry and agriculture and was sold to the other branches of the economy; nothing was then left for the accumulation of fixed assets in industry. The bulk of the peasant households were too poor to be able to afford extended reproduction.

The data in the balance on "capital" shows that there was no rapid accumulation of fixed assets at that time.

Movement of "Fixed Capital" in 1923-24
(million rubles)

	Beginning of year	End of year	% change
Value of agricultural and transport equipment	1,719	1,773	103
Value of cattle and fowl	4,641	4,941	107
Value of "capital" in industry	6,225	6,174	98
Value of "capital" in transport	5,543	6,050	109

Industry sold 467 million rubles' worth of means of production to agriculture and almost 3,000 million rubles' worth of consumer goods to the rural population. Industry in turn bought 2,550 million rubles' worth of raw materials from agriculture and 370 million rubles' worth of consumer goods for its workers. That means that a division of labour existed between industry and agriculture in spite of the fact that industry, which was backward and had not even reached the pre-war level, was as yet too weak to serve as the material basis for the socialist reconstruction of agriculture.

There can be no economic analysis without social analysis, and one of the principal defects of the balance was that it contained no data on the relations between town and country according to social sectors. Nor did it analyse the prices for industrial and agricultural production, even though in 1923-24 this was of enormous importance (the price gap in the autumn of 1923). The balance gives a distorted picture of the state of agriculture and of the relations between town and country. The authors of that balance drew an absurd conclusion, which they described as being of "enormous significance", that agriculture could develop "by relying on its own means of production" since "in agriculture $\frac{2}{3}$ of the products important to production are produced and consumed within their own households".

It is common knowledge that small-scale commodity farms (at that time the most numerous in agriculture) are unable to take up simple reproduction, let alone extended reproduction. Small-scale commodity farms neither possess nor produce the means of production necessary for extended reproduction. But the authors of the balance were unable to see the problem from a Marxist point of view. They looked at it from a populist Socialist-Revolutionary position and regarded the natural economy of small-scale peasant households as a basis for stable development.

It is this unscientific approach that makes them assert that the "town is economically weaker" than the country and that the alliance of socialist industry with agriculture is essential only for the town. "For industry, a break in the links between town and country means a stoppage of production in all branches processing agricultural raw materials and relying on agriculture for fuel; for the urban population it means a halt to the reproduction of human energy and human life. On the other hand, a break in the link between country and town not only fails to decrease the consumption by the rural population of means of subsistence but, theoretically, even expands it. The reproduction of human energy and the lives of those connected with agriculture will, under these conditions, proceed without interruption." By defending reactionary ideas about the stability of small-scale commodity production and about its "independence" from large-scale industry, the authors

of the economic balance became the mouthpiece of the classes hostile to socialism.

The table on the size and composition of the social product in industry, agriculture, construction, transport and trade shows that reserves for the compensation of the workers' means of subsistence (*v*) comprised about 65 per cent of the gross national income and approximations show that accumulations did not exceed 3-4 per cent of the national income. The remainder of the national income was spent on the maintenance of employees in the material production branches, the services sector, and went to the formation of social funds. Admittedly, these figures may not be entirely correct, but diametrically opposed conclusions would be even less truthful. Let us remember that pre-war labour productivity had not yet been re-established, state resources were small, the state budget for 1923-24 showed a deficit and the "fixed capital" of state industry was still being fully consumed. However the balance does not show the distribution of the consumed social product and national income according to classes, and therefore throws no light on one of the most interesting problems of the transition period.

Owing to the failure of the 1923-24 balance, less interest was taken in the theory and practice of economic balancing, research was being conducted mainly by the Central Statistical Board (data for the 1928-29 and 1930 economic balances). Shortly before the war Gosplan began work on the balance of the economy and gave an impetus to relevant practical computations and theoretical work.

Purpose and Structure of the Balance of the Economy

The balance of the economy should give as complete a survey as possible of the socialist reproduction process. Almost all Soviet economists agree on this definition of the purpose of the economic balance. The balance should help the study of economic proportions and ensure that they are correctly fixed in the economic plan. Yet, while Soviet economists agree on the general purpose of the balance, there is no such uniformity as regards its content

and methodology. These differences become apparent the moment an attempt is made to determine the concrete content of the economic balance.

Some economists fail to distinguish between the balance of the economy and the economic plan. They reason that since there is a plan, and that plan is co-ordinated, it must of necessity become an economic balance. But this attitude will never lead to a solution of the balance problem since all it does is strike the problem off the agenda. The plan, with its enormous number of targets for the various ministries, departments, republics and economic regions, must not be identified with the balance of the economy. If the balance is a component part of the plan it should be shown, and theoretical problems concerned with its elaboration should then be worked out.

A group of Soviet statisticians regards the balance of the economy as an "economic table of socialist reproduction".

They admit that the balance has a specific purpose and it must not be identified with the economic plan. According to them the economic balance or reproduction balance, as they call it, should give a concrete summary of the following basic processes:

a) the Soviet Union's economic growth rates, i.e., the rate at which socialist reproduction and wealth grow and the living standard of the people rises;

b) factors and sources of extended reproduction, hence, the economic reserves of the socialist system of economy, which express the supremacy of socialism over capitalism;

c) the relationships and proportions of reproduction, promoting a rapid growth of the principal links in socialist economy and ensuring a co-ordinated operation of all parts of the economy.

It is easy to see that far too much is expected from the "economic table of socialist reproduction". For the balance of the economy to solve all the above problems, it would have to turn into an economic plan and would stop being a balance. In short, the demands put on the balance by that group of statisticians far exceed the comparatively modest aims inherent to an economic balance.

In another textbook on the theory of statistics, the content of the balance is described as follows:

"An economic balance should reflect the process of

planned economic development as laid down by the requirements of the basic economic law of socialism and the law of planned, balanced development:

1) the growth of social production and the subsequent accumulation and continuous rise in the material welfare and cultural level of the Soviet people, and the growth in public consumption;

2) the factors and sources of extended socialist reproduction—the growth in the number of workers, engaged in the sphere of material production; the growth in the productivity of social labour; the increase in the amount of instruments of production available to labour, the utilisation of labour and material resources and reserves in the economy;

3) the proportional development of the economy—the interrelations and proportions in the economy."

In describing the balance's concrete content, the authors declare that it should contain the following basic tables: the balance of production, consumption and accumulation of the social product; the balance of the production, distribution and redistribution of the social product and national income; and the balance of labour. It is easy to see that there is a contradiction between the general definition of the balance and the proposed tables. The tables offer no information on the increase in the machinery available to labour, nor on the utilisation of material resources or reserves in the economy, in the general sense of these terms. This contradiction springs from the vague definition of the economic balance.

The model of the balance proposed by the Central Statistical Board at the All-Union Conference of Statisticians in 1957 contains many interesting and useful suggestions, even though some additional work and several corrections are necessary to improve it.

Let us look at Table No. 1 "Summary Table of Economic Balance" and Table No. 3 "Balance of Production, Consumption and Accumulation of the Social Product" in order to illustrate some of the general problems connected with the structure of the balance suggested by the Central Statistical Board.

The subject of the summary table enumerates first, enterprises in the branches of material production divided according to social forms and branches; second, non-produc-

tive institutions and organisations; and third, the population according to classes. The predicate is divided into the following main sections: production and initial distribution of the social product showing its composition in value terms; the circulation of the social product; the ultimate utilisation of the social product showing the size of the compensation of material expenditure, and consumption and accumulation.

One is struck by the fact that the summary table does not divide production into Departments I and II. The grouping of enterprises in the sphere of material production showing whether they belong to the state or co-operative sector (the social form) does not indicate to what branches of the economy they belong, and the section dividing them according to branches makes no mention of social forms. As a result the summary table fails to show the proportion between the production of means of production and the production of consumer goods, ignores the exchange within these departments, and throws no light on the development of socialist production relations in the various economic branches.

The table does show reproduction results according to economic branches, but makes no indication of the proportions between them. It shows, for example, how much industry has produced, realised, acquired and accumulated. But it does not enable us to establish the quantitatively definite relationships forming as a result of reproduction between industry and the other economic branches. This means that the summary balance does not reflect the basic proportions in reproduction that exist between industry and agriculture and between town and country.

Table No. 3 "Balance of Production, Consumption and Accumulation of the Social Product" is arranged as follows. The subject shows the production of the means of production, firstly, for the economy as a whole and according to the economic branches and, secondly, the production of consumer goods for the economy as a whole and according to the economic branches. Totals for the economy are also broken down into branches. The predicate shows the input of products according to sources and social forms, consumption according to social groups, and accumulation according to branches and social forms.

We consider this arrangement unsatisfactory. The predicate of the table contains much more information than the subject. The predicate shows all receipts and the realisation of the output according to branches, social forms and social groups, whereas the subject shows only the Departments and branches of the economy. Besides, the branches are shown twice; first in the subject and again in the predicate.

This structure of the balance has other and even more substantial defects. It shows the realisation of the means of production and consumer goods according to branches but does not show their realisation according to Departments, throws no light on the links between Departments I and II, nor on the accumulations in each of these Departments. In its place the Central Statistical Board suggests that a special table "Reproduction of Social Product According to the Main Economic Departments" be drawn up. This solution is, however, unacceptable for those favouring a single balance table. Besides, the authors do not show the reproduction in the Departments according to social forms.

The project for the balance of the economy drawn up by Professor S. Strumilin is widely known in the Soviet Union. He was one of the first economists to work on the balance and is a firm proponent of the view that the balance should be a single table. His proposals were the subject of heated controversy among economists. Later Professor Strumilin developed and improved on his original project. The author of this book also supports the view that the balance should be a single, easily surveyed table, which not only conforms with the theory of reproduction but is more convenient in planning.

From the above we see that widely differing views have been put forward on the concrete content of the economic balance. Some economists want it to be a single table of reproduction, others identify it with the economic plan, still others assign it a place somewhere in-between the two extremes. Obviously, so wide a range of opinions creates confusion among the people concerned with the practice of economic balancing.

We think that the impracticable attempts to make the balance all-embracing are based on an underestimation of

the Marxist-Leninist theory on realisation and reproduction models. In their teachings on reproduction Marx and Lenin assigned a key place to the realisation theory and regarded reproduction models as suitable for a theoretical analysis of the reproduction process. In spite of this, some Soviet economists interpreted the theory of realisation far too narrowly, stressed the abstract nature of reproduction models, and considered them historico-relative, i.e., declared that their usefulness was confined to capitalist conditions.

The theory of realisation deals with the replacement of all parts of the social product in value terms and in physical form, and with accumulation. It therefore deals with the basic aspects of social production, studies the interconnection of all its parts in the process of its constant renewal. "The problem of realisation," Lenin said, "is how to find for each part of the capitalist product, in terms of value (constant capital, variable capital and surplus-value) and in its material form (means of production, and articles of consumption, specifically necessities and luxuries), that other part of the product which replaces it on the market."*

Lenin's remarks on the capitalist system of economy are equally valid under socialism. The problem of realisation exists and is of vital importance in any type of reproduction. The narrowness of the market, competition and the anarchy of production determine the specifics of capitalist realisation, but not its special role.

Under any mode of production, the content of reproduction is determined by the basic economic law, by the aim of production. The basic economic law of socialism does not remove or diminish the problems of realisation. Although socialism does not experience the difficulties in realisation which are typical of capitalism as a result of the limited purchasing power of the working people, the problem of distributing means of production and consumer goods proportionately among branches and Departments, classes and forms of property, remains in full measure.

This is the reason for the emergence under socialism of a new economic law—the law of planned, balanced development. The maintenance of proportionality in produc-

tion and in the realisation of the social product becomes one of the basic functions of the socialist state. Under socialism, too, the balanced distribution (realisation) of the social product is beset by great difficulties, and involves the solution of many important contradictions. It is wrong to adopt a sceptical attitude towards problems of realisation under socialism. They are not solved automatically and Lenin said that the problem of realisation (the relation $v_1 + m_1 > c_2$) will continue to exist even when communism enters its second phase.

Obviously, an underrating of this problem is bound to tell on the economic balance theoretically and practically. We have already shown how many balance planners, instead of studying proportions in the production and realisation of the social product, merely attribute ever increasing tasks to the balance of the economy. The underrating of Marxist-Leninist reproduction models is also a result of the underrating of the theory of realisation.

All the fundamental tenets on Marxist reproduction—the division of the social product into the production of the means of production and the production of consumer goods; the priority growth of the means of production under extended reproduction; the surplus product as the only source of accumulation; the formation and purpose of social funds; accumulation as the only source of extended reproduction—are essential for economic planning in a socialist society. Many of these tenets are reflected in the reproduction models.

Since the theory of realisation and reproduction models establish the basic aspects and laws of reproduction, they serve as the scientific methodological basis for the elaboration of the economic balance. Without contradicting the universally accepted theory that the main aim of an economic balance is to reflect the basic aspects of socialist reproduction, we can make the more accurate definition by saying that the purpose of an economic balance is to discover conditions under which the social product can be realised under socialism, the results deriving from its realisation and the proportions in which it is realised in a socialist economy.

In a society where the means of production are public property and there is social accounting and planning, an

* Lenin, *Collected Works*, Vol. 3, p. 46.

economic balance helps to fix the basic proportions between the production of means of production and consumer goods, accumulation and consumption, industry and agriculture, and the proportions in the distribution of the social product and the national income, between forms of property and classes, in a way most likely to promote the gradual transition to communism. The balance of the economy reflects important aspects in the development of the productive forces and the relations of production which determine the socialist type of reproduction.

In other words, we expect far more modest objectives from the economic balance than many other economists. In our opinion the balance should not attempt "to embrace the unembraceable". It should facilitate an all-round survey of the economic situation and be suitable for practical utilisation. We know that Marx held a high opinion of F. Quesnay's *Tableau Economique*, praising it for its attempt to reflect the reproduction process in a single table "which in fact consists of no more than five lines which link together six points of departure or return...".*

GENERAL STRUCTURE OF THE ECONOMIC BALANCE

Subject (stages of social reproduction and structure of the social product)

1. Production of the social product and its composition in value and physical terms
2. Realisation of the social product. Consumption according to classes
3. Reproduction results

Predicate (branches of the economy and forms of property)

1. Industry
 - public property
 - co-operative property
2. Agriculture
 - public property
 - co-operative property
 - including personal plots of collective farmers and allotments of factory and office workers
3. Construction
 - public property
 - co-operative property
4. Transport and communications
 - public property
 - co-operative property

* Marx, *Theories of Surplus-Value*, Part 1, Moscow, p. 334.

5. Trade, procurements, supplies
 - public property
 - co-operative property
6. All economy (non-productive sector given separately)
 - public property
 - co-operative property
 - personal property

In conformity with classic reproduction models the general structure of the balance deals exclusively with the realisation of the social product. The general idea of this structure is to show the basic aspects of reproduction *simultaneously* according to the various stages of reproduction, Departments, branches of production and forms of property.

The predicate is self-explanatory and needs no comment. Individual households have been omitted in the enumeration of the forms of property (social sectors) since they are of no importance to the computations. Similarly, no figures for "other branches of material production" (picking of mushrooms, berries, etc.) are necessary in a general enumeration of the branches.

Let us take a closer look at the various sections in the subject beginning with the production and composition of the social product. We suggest that the concrete content of this section looks as follows:

I. Production of the Social Product and Its Composition in Value and Physical Terms

A. Department I (production of means of production)

1. Production of means of labour
 - a) expenditure of embodied labour
 - b) expenditure of live labour on the creation of the means of subsistence fund (product for personal use)
 - c) expenditure of live labour on the creation of the accumulation fund (product for society)
2. Production of objects of labour
 - a) expenditure of embodied labour
 - b) expenditure of live labour on the creation of the means of subsistence fund (product for personal use)
 - c) expenditure of live labour on the creation of the accumulation fund (product for society)
3. Total production of means of production
 - a) expenditure of embodied labour
 - b) expenditure of live labour on the creation of the means of subsistence fund (product for personal use)

- c) expenditure of live labour on the creation of the accumulation fund (product for society)
- B. *Department II* (production of consumer goods)
 - a) expenditure of embodied labour
 - b) expenditure of live labour on the creation of the means of subsistence fund (product for personal use)
 - c) expenditure of live labour on the creation of the accumulation fund (product for society)
- C. *Total production of social product*
 - a) expenditure of embodied labour
 - b) expenditure of live labour on the creation of the means of subsistence fund (product for personal use)
 - c) expenditure of live labour on the creation of the accumulation fund (product for society)
 - d) National income (b + c)

The first section of the subject is based on a division of production into Departments I and II (production of the means of production and production of consumer goods), a division which is usually omitted. The grouping is generally based on a division of the social product in value terms, while the division into Departments I and II is given either separately and is not tied up with the realisation of output, or the realisation of the social product in value terms is traced according to Departments, but does not show economic branches and forms of property. The elaboration of the balance begins with material production—the basic and initial stage of reproduction. To obtain a realistic survey of production in the balance, it is necessary to break production down into Departments, branches and forms of property. In the production of means of production, the production of means of labour and of objects of labour should be shown separately because the two serve different economic purposes. It might be expedient to single out the production of means of production both for Departments I and II.

Let us now decipher the second section of the subject

II. Realisation of the Social Product. Consumption According to Classes

- A. *Consumption of means of production in Department I*
 - 1. Consumption of means of labour
 - a) replacement of consumed means of labour including transfers to other branches (sectors)
 - b) accumulation including transfers to other branches (sectors)

- 2. Consumption of objects of labour
 - a) replacement of consumed means of labour including transfers to other branches (sectors)
 - b) accumulation including transfers to other branches (sectors)
- 3. All consumed means of production in Department I
 - a) replacement of consumed means of production including transfers to other branches (sectors)
 - b) accumulation including transfers to other branches (sectors)
- B. *Transfer of means of production to Department II*
 - 1. Means of labour
 - a) replacement of consumed means of labour including transfers to other branches (sectors)
 - b) accumulation including transfers to other branches (sectors)
 - 2. Objects of labour
 - a) replacement of consumed objects of labour including transfers to other branches (sectors)
 - b) accumulation including transfers to other branches (sectors)
 - 3. All consumed means of production in Department II
 - a) replacement of consumed means of production including transfers to other branches (sectors)
 - b) accumulation including transfers to other branches (sectors)
- C. *Consumption of consumer goods in Department II*
 - a) from the means of subsistence fund (the fund for planned increase in living standards is shown separately) including transfers to other branches (sectors)
 - b) for enlisting additional workers. including transfers to other branches (sectors)
- D. *Transfers of consumer goods to Department I*
 - a) from the means of subsistence fund (the fund for planned increase in living standards is shown separately) including those to other branches (sectors)
 - b) for enlisting additional workers including transfers to other branches (sectors)
- E. *Consumption in non-productive sphere*
 - a) total (the fund for planned increase in living standards is shown separately) including housing social and cultural services defence and administration
- F. *Total distribution of the social product*
 - a) replacement of consumed means of production including transfers to other branches (sectors)
 - b) replacement of consumed means of labour including transfers to other branches (sectors)
 - c) replacement of consumed objects of labour including transfers to other branches (sectors)

- d) means of subsistence fund (the fund for planned increase in living standards is shown separately) including transfers to other branches (sectors)
- e) accumulation of means of production including transfers to other branches (sectors)
- f) accumulation of means of labour including transfers to other branches (sectors)
- g) accumulation of objects of labour including transfers to other branches (sectors)
- h) accumulation of consumer goods including transfers to other branches (sectors)
- i) reserve fund including means of production means of consumption
- j) all realised accumulation including receipts from other branches (sectors)
- k) all consumption (the fund for planned increase in living standards is shown separately) including receipts from other branches (sectors)
- l) consumption according to classes

The second section of the subject surveys the distribution, exchange, consumption and accumulation of the social product. The circulation of the social product is divided into its chief components and forms, Departments and branches of the economy and forms of property, while consumption is divided according to classes. Admittedly, it is not easy to survey the exchange between branches, Departments and social sectors, but no true picture of reproduction can be gained without it.

Naturally, any computation of the total size of the social product (national income) and of the distribution of the output must include the final result (balance) of foreign trade. Any quantitative analysis must be supplemented by a qualitative analysis, particularly if it is a study of social problems. In computing the respective shares of public property and collective-farm property, we should not overlook the fact that collective-farm property is gradually drawing closer to the property of the whole people.

The concluding (third) part of the subject gives the reproduction results for the period under review.

III. Reproduction Results

Fixed Assets

at the beginning of the year
at the end of the year

Circulating assets

at the beginning of the year
at the end of the year

Reserves

at the beginning of the year
at the end of the year

Property of the population

at the beginning of the year
at the end of the year

National wealth

at the beginning of the year
at the end of the year

Extended socialist reproduction and the proportionate realisation of the social product can be effected only if definite proportions exist between the various aspects of social production, its Departments and key branches and the component parts of the social product in value terms. Let us make an attempt to show which proportions can be established from the suggested structure of the balance.

The general law of extended reproduction states that the output of Department I must exceed the outlay of fixed and circulating material assets in both Departments. The priority growth of Department I will continue during the period of the gradual transition from socialism to communism. This is determined by the tasks set by the building of the material and technical basis of communism, overall electrification, comprehensive mechanisation and automation, and the chemicalisation of production.

The further socialisation of agriculture, i.e., the gradual disappearance of personal plots and the corresponding growth in commonly-owned plots, and the replacement of primary domestic processing of agricultural produce by industrial processing, leads to the expansion of Department I in agriculture. The rapid development of animal farming also contributes to this expansion.

The division of labour in the world socialist system, the increased deliveries of equipment and other means of production to the socialist and newly free countries, also promote the growth of industrial means of production. The assistance given to the newly independent countries also contributes to the priority development of heavy industry.

In addition to factors promoting the growth of Department I, there are factors promoting the development of Department II. High growth rates in Department II (producing consumer goods) are needed to enable the Soviet Union to attain the highest consumption level in the world, to

build more houses and provide more amenities, and to substitute public catering for housekeeping. But unless Department I develops more rapidly than Department II, there can be no continuous extended reproduction. This law can be deduced from any balance model. The balance shows the need for the priority development of Department I and also by how much its growth is to outstrip that of Department II.

It should also show the quantitatively definite links which emerge in the process of reproduction between the Departments, branches and sectors.

The general law of socialist reproduction—the priority growth of Department I—should also be reflected in the proportions of the balance, emerging when the gross output of Department I is distributed according to plan. An accelerated growth of the means of production ensures:

(I) the supply of more industrial instruments and objects of labour to industrial and other enterprises. A part of these supplies compensates for expended industrial means of production, the rest is accumulated and used to expand industrial, agricultural and other production in keeping with the relevant programmes and to increase reserves and exports according to plan;

(II) a larger output of agricultural raw materials for consumption in agriculture and industry. The agricultural output must not only compensate for expended agricultural means of production, but also provide for the expansion of industrial and agricultural production and an increase in reserves and exports;

(III) stronger ties between construction and other economic branches on the basis of the rapid expansion of fixed assets in the economy;

(IV) an increase in the share of the instruments of labour in the total value of the fixed productive assets.

The economic balance shows the aggregate size of the compensation and accumulation funds being formed at the expense of means of production and also the balance between the sectors and branches of the economy during the realisation of the output of Department I.

To ensure extended reproduction, the output of Department II must cover the consumption not only of workers employed at the time the plan is drafted, but also of those

to be additionally enlisted in production and the services sector. Since the increase in living standards and the improvement of the conditions for the reproduction of labour force are an integral part of socialist reproduction, the output of Department II is used also to increase the existing level of consumption. By computing the realised gross output of Department II according to the suggested scheme, we can establish the following information:

(I) the amount of consumer goods supplied to the productive branches of the economy, the non-productive sphere, and to exports and reserves;

(II) the fund of consumer goods set aside for additionally enlisted workers and the fund earmarked for the improvement of the working people's material welfare;

(III) the amount of industrial consumer goods supplied to the rural population. One of the reasons for the steady growth of these supplies is the denaturalisation of agricultural consumption;

(IV) the balance between sectors and economic branches, which shape as the production of Department II is realised.

In computing the realisation of the aggregate social product we can establish such important proportions as $c_1 + v_1 + m_1 > c_1 + c_2$; $(v_1 + m_2) + (v_2 + m_2) > c_2 + v_2 + m_2$; $v_1 + m_1 > c_2$, and also determine in toto the compensation fund, the consumption fund and the accumulation and reserve funds. We can also see the relations shaping during their distribution, and the resulting balance between sectors and economic branches. All these indices are shown according to branches and social sectors.

Many other links could be deduced from the proposed table for the economic balance, but we are concerned with analysing definite proportions. This structure of the balance must prove itself in practice, since only practical utilisation can show up its strong and weak points and enable us to judge its ultimate usefulness.

Methodological Problems in Computing the Balance of the Economy

Numerous methodological problems emerge in drafting even the simplest economic balance. The main thing to remember is that the balance of the economy is a compo-

nent of the economic plan and should not be divorced from it. For this reason we cannot agree that the elaboration of the balance should precede the drafting of the economic plan, nor that the latter depends on the balance.

An adequate economic balance cannot be drawn up prior to the plan. If such a thing were to happen we should have to determine the growth rates of economic branches without the aid of qualified specialists, and without providing for available equipment and the initiative of the masses, etc. The final computations of the basic proportions, i.e., of the balance of the economy, should be made simultaneously with the computations of the economic plan.

An exaggeration of the balance's role is also untenable from a methodological point of view.

The balance is the result of the application of the law of planned, balanced development. But the objective, basic tasks of the plan and conditions for the achievement of proportionality are dictated mainly by the basic economic law of socialism, which defines the supreme aim of socialist production. Work on the plan, and hence on the balance, can begin only in conformity with this supreme aim. This work must be based in equal measure on synoptic computations and on a detailed technical and economic study of the prevailing conditions in the economic branches.

In drawing up the balance, great importance is attached to the problem of means of defence. These means do not participate in the reproduction process and, economically speaking, are a deduction from the social resources. Yet, as long as aggressive imperialist powers exist, the development of the production of means of defence remains an objective necessity for the socialist countries.

There is no unanimous opinion on the place occupied by defence production in the socialist system of economy. Some economists suggest that it should be related to Department I, others consider it a part of Department II, still others declare that it should be related to both Departments. We consider their arguments far from convincing and useless in solving the problem of the economic balance.

Not only weapons, but also the raw and other materials

used in their production, their depreciation, etc., should be classed with the means of defence, since the present system computes the gross output as the total output of all enterprises.

Another methodologically important problem in drawing up the economic balance is the method used to compute the deviation of prices from value. It would be as well to consider it in greater detail.

The fact that the balance is compiled in value terms shows that it is concerned with problems of value. Many economists declare in all fairness that the lack of coincidence between price and value makes the value indices inaccurate. Since the prices for a number of products manufactured by heavy industry are fixed below value, while those on a part of the output of light industry are set at value or above, indices such as the ratio between accumulation and consumption, the shares of the economic branches in the gross output, the ratio between Departments I and II, and others computed in current prices, also deviate from value.

To be able to fix planned prices which would take a strict account of the value of commodities, we should have to possess a fair idea of the magnitude of their value. This is our great stumbling block.

Although the practical importance of research into the redistributional relations formed by the utilisation of the law of value is self-evident, there are as yet no practical methods for computing the deviation of prices from value. In fact, the problem has not even been theoretically worked out. Heated discussions rage round this and all other problems connected with value.

Some Soviet economists consider it impossible to establish, compute or plan the magnitude of value, since the reduction of individual expenditure of labour to the socially necessary expenditure of labour is an objective process inherent in commodity production, and its results cannot be predetermined. Under private ownership of the means of production the forces operating in an uncontrolled market, which tend to reduce individual labour expenditure to socially necessary labour expenditure, act blindly, behind the backs of the producers, and in those conditions

all attempts to determine the value of commodities are foredoomed. Things are different in socialist production.

In the Soviet Union all labour is directly social and is organised according to plan. This means that the total expenditure of social labour can be computed in advance, planned and thereby guaranteed social recognition. In a socialist economy the personal plots of the collective farmers are a sector in which labour expenditure may occasionally fail to be recognised by the collective-farm market. The supply and demand situation is also able to make certain corrections in the prices and labour expenditures in state enterprises producing consumer goods, but these are relatively small labour expenditures and do not affect the estimate of socially necessary labour expenditure.

Since it is possible to compute the expenditure of planned labour, it is likewise possible to calculate a practically acceptable magnitude of value. If we consider commodity production under socialism universal, i.e., that it applies to the production of the aggregate social product, then the total labour expenditure comprises the total magnitude of value. If we exclude from commodity production the part of the social product which is not distributed among the members of society, the total expenditure of labour will conditionally make up the full value, since the non-marketable share of the social product will be calculated in a manner similar to that used for the calculation of the marketable share, even though it is essentially not a commodity.

We must not overestimate the possibilities for computing the value of commodities, nor is it hardly possible at present to calculate the value of every single commodity. But for many planning and research purposes it is both possible and practical to have "accounting prices" in addition to current prices. These help determine the magnitude of value being created in the separate branches, how much is redistributed through prices, and how much remains in the branch concerned. As far as we know, the idea of establishing "accounting prices" belongs to Academician Strumilin. "Accounting prices" or coefficients must be computed for the main branches or spheres of the economy, they need not be detailed, let alone endorsed and introduced into universal circulation. "Accounting

prices" should include production outlays (cost) and the product for society produced in the relevant branch. A comparison of the output in real and "accounting" prices would give a fairly accurate account of the magnitude of the redistribution being effected through the mechanism of prices.

The elaboration of "accounting prices" is no easy matter. If the computation and planning of costs have the benefit of long practice, methods for computing the product for society, created in this or that branch, are as yet in the debating stage. Many diverse proposals have been advanced for determining the product for society and, hence, for determining prices according to value or as a near approximation.

Since the value of the product for society is created by labour alone, Strumilin proposes that its value be distributed in proportion to the actual labour expenditure (labour remuneration fund).

Y. Kronrod's computations distribute the value of the product for society among the industrial departments, in proportion to the number of workers employed in each department. But Kronrod admits that data purely on the number of workers employed is not enough, since the length of working hours, skills and labour intensities differ from industry to industry.

In view of the differences in the amount of machinery available to labour in the various economic branches, I. Malyshev proposes the following distribution of the product for society: every branch should be allotted an identical margin of profit, which is determined by the size of the total fixed assets at the disposal of the relevant industry.

B. Minc, a Polish economist, considers that the ratio between the wage fund in any given branch of production, and the total wage fund (taking account of the amount of machinery available per worker) should be the criterion for the distribution of the product for society, on the basis of prices for separate commodities. He suggests the following formula for computing the price:

$$C + v + (v + a \times p) \frac{M}{V + Ap}$$

where V is the wage fund in the given branch of production; a —the magnitude of the depreciation in the given industry; p —the depreciation factor; M —the product for society; v —the general wage fund; A —the general magnitude of depreciation.

The brackets contain the corrective factor for v , used to determine the effect exerted by the index of machinery available to labour on wages. We think that this formula could be improved to read:

$$C + (v + a \times p) \times \frac{M}{V + Ap}$$

According to this formula the part of the product for society included in the prices of separate products is proportional not to the expenditure of live labour (v), but to the expenditure of live labour with a correction for the index of machinery available to labour.

Among the proposals enumerated above preference should be given to those which call for a distribution of the product for society not only in accordance with the expenditure of live labour but also the embodied labour—the fixed and circulating assets (or only the fixed assets). Theoretically, these proposals are based on a special interpretation of the law of production prices.

Minc believes that one of the reasons responsible for a modification of the law of value into the law of production prices is that the wide application of means of labour has raised the development of the productive forces to a very high level. Under socialism, too, the difference in the indices of machinery available to labour must be taken into account. Otherwise, Minc declares, profits and prices will be higher in the branches with a higher labour expenditure, and this will put a fetter on technical progress and result in a growth in the share of products the manufacture of which entails a high expenditure of direct labour.

In our opinion Minc's argument does not hold water. It is common knowledge that under capitalism (leaving monopoly prices aside) profits are distributed according to production outlay. But this is a result of capitalist competition and not of the difference in the organic composition of capital in the various branches. Historically speaking,

mechanisation grew because it lowered the individual labour expenditure and helped the capitalists derive additional profits. It was only when capital had already accumulated that the average profit became the *sine qua non* of the existence of capital. The law of production prices does not remove the law of value nor does it alter the fact that value is created only by live labour. It shows the specific conditions in which the law of value operates under capitalist competition.

Since there is commodity production under socialism, the law of value continues to operate—value is created by live labour, and the magnitude of value and that of the product for society is determined by its expenditure. As regards Minc's misgivings that the price and profits will be higher in the labour-consuming branches, this could happen only in the event of prices for each commodity corresponding exactly to their value. But in socialist society the active redistributive role of prices enables the state to use value in a planned way. We are interested in computing the full value of commodities not because we want to make prices correspond to their exact value but because we want to establish by how much they deviate from this value. Prices computed according to Minc's formula do not coincide with value and cannot be used to analyse their deviation from value.

This is not our only objection to Minc's formula. He recommends that the index of machinery available to labour be computed by comparing the depreciation of the fixed assets in the given branch with the total depreciation in the economy. In other words, he proposes that the machinery available to labour be measured according to the actual utilisation of the fixed assets in production. We think this would be correct only under the following two conditions: 1) if the obsolescence of the fixed assets were approximately equal in all branches (the level of technical development), and 2) if the evaluation of the fixed assets, serving as the basis for the depreciation deductions, were 100 per cent correct. The conclusion drawn from Minc's formula will be wrong if these two conditions are not observed.

Minc points out that certain corrections must be made for the magnitude of the depreciation if the price analysis

formula is to reflect the concrete conditions on which depends the machinery available to labour (the deficit in fixed assets, the need to accelerate the rate of technical progress). The depreciation factor can be equal to unity or can be larger than unity, depending on the degree to which the scarcity of fixed assets is felt in the economy, and on the rate set for technical progress. Such a factor, we feel, would be the result of a subjectivistic approach and have nothing to do with determining the magnitude of value. The question of whether or not such a coefficient could be used for the construction of actual (not "accounting") prices also warrants discussion.

Theoretically, and hence also practically, it would be correct to establish the value of commodities by distributing the product for society among the branches of the economy on the basis of labour expenditure. But this is not easily done. The magnitude of the value depends on abstract, socially necessary labour. For this reason the product for society cannot be distributed in proportion to the expenditure of concrete labour, computed in hours or man-days. To reduce the expenditure of concrete labour to abstract labour, complex labour must be reduced to simple labour.

The existing labour remuneration fund is based on the tariff system and makes allowance for the complexity of different types of labour and the skill of the workers. In modern conditions this gives a fair idea of the expenditure of abstract labour in the various branches. It is therefore preferable to distribute the product for society in proportion to the labour remuneration funds, and not in proportion to the expenditure of concrete labour in man-hours.

The method suggested is not universally accepted and is objected to by a number of economists. Sh. Turetsky, for instance, declares that this method ignores 1) the level of labour productivity in the various branches and 2) the level of the socially necessary labour expenditure at the given index of machinery available to labour and level of workers' skills. This would be a fair objection if wages in the Soviet Union ignored the productivity of labour, skill and amount of equipment available to labour and did not distinguish between complex and simple labour. But the present wage system does not ignore these aspects.

Turetsky demands that the coefficients used for reducing various types of labour to simple labour be put on a scientific basis and that scientific standards be worked out to determine labour expenditure. He is quite right, but it will be many years before this can be done. Besides, it

Table for Computing the Output of the Branches of Material Production in "Accounting Prices"

	In current prices		Labour remuneration fund		Product for society	Output in value terms ("accounting prices")	Deviation of "accounting prices" from the output in current prices (+, -)	"Accounting prices" index (current prices = 100)
	output	cost	in money terms	share				
	1	2	3	4	5	6	7	8
<i>All economy</i>								
Department I .								
Department II .								
<i>Industry</i>								
Group A . . .								
Group B . . .								
<i>Agriculture</i>								
State farms . .								
Collective farms								
Department I .								
Department II .								
<i>Construction</i>								
Department I .								
Department II .								
<i>Transport and communications</i>								
Department I .								
Department II .								
<i>Trade</i>								
(incl. procurements)								
Department I .								
Department II .								
<i>Other branches</i>								
Department I .								
Department II .								

is a matter of opinion whether the future coefficients will be any better than the methods now in use. In the meantime it is quite possible to try to elaborate "accounting prices" on the basis of cost plus part of the product for society, obtained by distributing the total product for society among the branches in proportion to the labour remuneration funds.

On a national economic scale the product for society is equal to the profits and the turnover tax and should be divided among the branches in which the national income is created. For the purposes of the economic balance the computation and its results could be obtained from the table given on page 333.

To be of any use in practical computations, the table should give more detailed data, particularly on the co-operative sector (construction in collective farms and output of co-operative industry). The filling in of most of the columns in the table is routine work for statisticians and only a few items need discussing.

It is difficult to calculate the output, cost and funds for the remuneration of labour in collective farms. In current practice, the collective-farm output is computed in average weighted realisation prices; the output sold to the state in procurement (purchasing) prices; the output sold by the farm on the open market in market prices; production consumption in kind and stocks also in procurement prices, and finally, the output distributed to the farmers according to work-day units is computed in average prices, somewhere in-between the procurement and the market prices.

Following a decision of the June (1958) Plenary Meeting of the Central Committee of the C.P.S.U., economically-founded procurement (purchasing) prices have been established for agricultural products. In fixing the level of the new procurement prices due consideration was given to the collective farms' need to compensate for outlay (average zonal conditions of production being taken into account), to the growth in labour productivity, the lowering of costs and the creation of accumulations for extended socialist reproduction. Since the present procurement prices are close to value and are unified and payment in kind for machine work has been abolished, there

are far less difficulties in evaluating agricultural output. There is no unanimity, for example, on how the output used for on-farm production purposes should be evaluated, i.e., whether according to procurement prices or to cost. In our opinion procurement prices are preferable since they should reflect production conditions and allow for a certain accumulation.

Another difficulty is the evaluation of the fund for the remuneration of collective farmers' labour. In computing the cost of agricultural output the income of the collective farmers in work-day units is sometimes taken to equal the wages of state-farm workers. This is done to facilitate a comparison between the output cost of different collective farms working in similar conditions but differing in the organisation of their commonly-owned sector. Without a computation of the cost the results of the economic activities of collective farms could not be compared, nor could economic accounting be introduced.

But in computing the labour remuneration fund of collective farms in toto for the specific purpose of determining the size of the product for society to be charged to the collective farmers, the farmers' remuneration fund should be computed on the basis of actual payments. Collective-farmers' income consists of the income they receive from the commonly-owned sector and the income from their personal plots. These incomes are paid in money and in kind. One frequently hears suggestions that the farm products distributed among the farmers should be evaluated in retail rather than procurement or mixed (procurement and market) prices.

In fixing workers' wages the retail price level is always taken into account because it exerts a definite influence on the industrial labour remuneration fund and on the cost of industrial output. Similar methods in agriculture would enable us to compare the incomes of workers with those of collective farmers. In evaluating the incomes of the collective farmers in work-day units we should also take into account that part of the profit and rent which is distributed according to work-day units, i.e., the collective farmers are receiving not only the product for personal use but also some of the product for society. The neces-

sary corrections should be made when fixing the labour remuneration fund in collective farms.

As regards the computation of industrial output, we think that the output in current prices should include the turnover tax. In the "other branches" the cost and the labour remuneration fund could be determined according to the share of this or that magnitude in the price of the output of related branches.

"Accounting prices" or prices close to value are thus fixed by distributing the product for society among the economic branches or Departments of social production in accordance with the labour remuneration funds. In this manner not only the part of the output created by live labour but all output, including the transferred value (embodied labour), is evaluated at value.

When detailed computations are made the compensation fund could be considered in prices which are closer to value than current prices. Changes in prices brought about by the movement of the output from the extractive to the manufacturing branches should also be taken into account.

"Accounting prices" should be used primarily in studying the following relationships: those between Department I and II, group A and group B in industry, industry and agriculture, accumulation and consumption, and also for determining the shares of separate industries in the formation of the national income and the social product. The proportions between Department I and II, heavy and light industry, industrial and agricultural output, the shares of the different branches in the production of the social product and national income both in value and current prices, can also be derived from the above table.

Relationships expressed in terms of value will differ from those expressed in current or constant prices. We should make the following reservation—the relationship between industrial and agricultural output in current and "accounting" prices does not give us a true picture about the balance between state industry and collective farms. To establish this we have to know the exact share of the output being exchanged between the two branches and also the ratio between the "accounting" and current prices for the output being exchanged.

Moreover, we should take into account what and how much the collective farms are receiving from the state in addition to payments for their output, i.e., capital investments into the development of the collective farms, training of farm personnel, savings owing to state-owned land being put at the disposal of the collective farms free of charge, etc., and also the payments made by collective farms to the state.

Only very complicated additional calculations can throw light on the question of the balance between state industry and agriculture. In considering the differences in the relationships as expressed in current and "accounting" prices, we must pinpoint where the divergence between the two begins. If this divergence began in the war years, for example, the then established shares will be less important to a survey of the Fourth and Fifth Five-Year Plans and later long-term plans than their dynamics and later changes. In computing accumulation and consumption in prices according to value, it is also necessary to reevaluate them in prices which take account of the even distribution of the product for society in proportion with the labour remuneration funds. The scheme on page 338 will be found useful for that purpose.

The index of accounting and current prices in capital construction can be used to translate the state- and collective-farm capital investments in fixed assets into "accounting prices"; the same index for Department I can be used for recalculating state investments into circulating assets; the indices of collective-farm crop output for collective-farm investments into circulating assets; indices of animal farming output for investments into the increments of herds; price indices for the output of heavy and light industry and agriculture for state reserves. The savings of the population could be translated into "accounting prices" according to the price indices of housing construction and of the light industry.

Consumption could be recalculated into "accounting prices" in a similar manner (see scheme on page 339).

The consumption of products acquired in state and co-operative trading establishments could be recalculated according to the index for the food and other light industries (group B). Consumption of products acquired on the

collective-farm market would have to be recalculated according to a special index. "Accounting prices" for the output sold on the collective-farm market should be derived from the cost of the collective-farm produce. The product for society must be taken into account when the sales of products received by collective farms and farmers from the commonly-owned sector are recalculated. The "accounting price" of the output stemming from the collective-farmers' personal plots will correspond to the level of the labour productivity on these plots. The "accounting price" of the output from the collective-farmers' personal plots and the allotments of factory and office workers going directly to consumption could be evaluated (after certain corrections are made) at the "accounting prices" of the collective-farm market, while retail prices should coincide with current prices. The consumption of social and cultural institutions and other consumers would have

Table for Computing Accumulation in "Accounting Prices"

	Accumulation in current prices	Accumulation in "accounting prices"	Deviation of accumulation in "accounting prices" from accumulation in current prices	Share of accumulations in the national income	
				in current prices	in "accounting prices"
All economy					
State investments in fixed assets					
State investments in circulating assets					
Total investments of collective farms					
Including:					
fixed assets					
circulating assets					
State reserves					
Savings of the population					
Including:					
housing					
chattels					

Table for Computing Consumption in "Accounting Prices"

	Consumption in current prices	Consumption in "accounting prices"	Deviation of consumption in "accounting prices" from consumption in current prices	Share of consumption in the national income	
				in current prices	in "accounting prices"
All consumption					
Consumption based on state and co-operative retail trade					
Consumption based on collective-farm market					
Consumption of collective farmers based on commonly-owned economy and personal plots					
Consumption of factory and office workers based on allotments					
Consumption of social and cultural, and state institutions					
Other consumption					

to be translated into "accounting prices" according to the price index of the food and other light industries.

Practical work with "accounting prices" will probably call for the application of more differentiated indices than those given above, and also for different methods. It is high time that these methods be discussed, checked and practically applied, for such achievements are worth more than dozens of programmes.

CONCLUSION

ADVANTAGES AND SOCIAL IMPORTANCE OF A PLANNED ECONOMY

A study of the history, theory and organisation of Soviet planning shows that the features typical of planned economy emerged and developed during the struggle for socialism and were further consolidated after its final victory.

The economic plans of all socialist countries are based on public ownership of the means of production and on the deliberate utilisation of the economic laws of socialism. These plans organise social activities on a nation-wide scale and accelerate economic development. They embrace all aspects of reproduction: the development of the productive forces and relations of production; the production, distribution, exchange and consumption of the social product; the accumulation and utilisation of the national income; the employment and training of the labour force and specialists, the improvement of the instruments of labour and processing techniques; the development of property forms and so on. Plans are the programmes for extended socialist reproduction.

The fact that planning depends on objective economic laws determines their purposive nature and continuity. Plans express the objective advance of society towards communism, the highest stage of social development. All Soviet plans are programmes of socialist and communist construction.

The fundamental task of the Communist Party is the building of communism, while the drafting of plans and the organisation of their execution are important means for the achievement of this task. Thus planning becomes a party matter. The Party Programme is the ideological basis

of all economic plans; guidance by the Party guarantees their success.

The Soviet state plans the economy both during the transition period and under socialism. Plans are regarded as directives and are binding on all. This makes planning a state matter. Soviet economic management (including planning) is based on the principle of democratic centralism. Centralised economic management is combined with the initiative of enterprises, local authorities, and the working people. Socialist emulation is the most effective form of mass participation in planning. However, planning is not confined only to the drawing up of plans, but is also concerned with their improvement in the process of implementation. The planning bodies draw on the experience and initiative of the masses. The role of the public organisations of the working people in the drawing up and implementation of plans grows as the building of communism progresses. With the withering away of the state, planning becomes a public rather than a state concern.

Economic planning is guided by the Marxist-Leninist theory of social development and by objective scientific laws. In adjusting the technology of social production, the planning bodies make full use of the discoveries of the natural sciences. The planning of economy and technology, the development of the productive forces and the smooth development of socialist production relations are based on strictly scientific premises.

Differences in the organisation and methods of planning in public and co-operative enterprises are due to the fact that there are two forms of socialist property, and that the labour and production in state enterprises and in collective farms are socialised to different degrees. In state enterprises social reproduction is planned and implemented by the state at public expense. In co-operative enterprises production, distribution, exchange and consumption are planned by the members of the co-operative. These enterprises use the co-operative's resources in conformity with the socialist principle of combining the interests of society as a whole with those of the co-operative. The progress towards communism gradually irons out the difference between planning in state enterprises and planning in co-operative enterprises. The co-ordination of planning in public enterprises

and collective farms, with the leading role assigned to the former, is a distinguished feature of socialist planning.

Socialist planning recognises the fact that while there is commodity production the law of value exerts a certain influence on the economy, which in socialist economy is kept within definite bounds. The plans stipulate the scale of production and circulation of the bulk of commodities, their cost and price. All synoptic indices of the plan are given in value terms. Economic categories connected with value, such as money, price, wages, economic accounting, credit, and interest have become major levers in the execution of plans.

Relying on the priority growth of Department I socialist plans provide for high growth rates in all economic branches and optimal proportions for their development. The fact that socialist planned economy uses material and labour resources according to plan, reveals additional reserves for the expansion of production and for raising the labour productivity gives socialist planning a decisive advantage in the economic competition with capitalism.

The purpose of a planned economy is to improve the living conditions of the working people. Targets for an increase in the production of consumer goods, the growth of the cultural level of the working people and the improvement in their living conditions are important components of all socialist plans. For a rise in living standards, work must be provided for all able-bodied members of society in accordance with their abilities and knowledge, and labour productivity must grow steadily. The absence of unemployment is therefore one of the decisive features of socialist economy.

Planned economy means equality and economic and cultural co-operation among all peoples, irrespective of race or level of economic and cultural development. A unified planned economy and centralised planning are powerful means for the more advanced peoples to help others to eliminate their inherited backwardness. Planning was also a powerful lever in helping backward peoples to build socialism, by-passing the capitalist stage. The emergence of a world socialist system facilitates the co-ordination of the economic plans of the socialist countries and thus a ration-

al division of labour and mutual economic assistance in the task of socialist construction.

These basic features of planning develop and improve alongside the development of the socialist mode of production and the Soviet state.

Balanced development is one of the distinctive features of socialist economy and one of its major advantages over the capitalist system. The supremacy of a planned economy is neither accidental nor temporary but is inherent in a socialist economy. The advantages of planned economy are ensured primarily by the removal of the antagonistic contradictions of capitalist society: between the social character of production and private appropriation; labour and capital; the growth of production and the drop in the effective demand of the working people; the metropolitan countries and the colonies; town and country, etc.

The socialist revolution strikes a decisive blow at the capitalist mode of production, eliminates the antagonistic contradictions typical of capitalism, and paves the way for a strong and balanced economic development. The advantages of socialism are immediately obvious, and, as the new mode of production develops, these advantages become more and more pronounced because the remnants of the contradictions inherited from capitalism are gradually abolished.

It is when the socialist economic system has finally established itself, i.e., socialist production relations rule supreme and the productive forces fully correspond to these relations that the advantages of planned economy begin to tell with full force and accelerate economic development.

The great advantages of planned socialist economy lie in the fact that under socialism the efforts of the people, the principal productive force of society, are far better channelled than under capitalism. Better living conditions and a better organisation of labour are created.

In spite of its outstanding achievements in the fields of culture, economy and technology, human society has failed to solve the elementary task of providing all its members with adequate food, clothing and housing. The reason for this is that until the advent of socialism, society was split into antagonistic classes and therefore was unable to provide all its members with enough work to ensure a basic level

of subsistence for themselves and their families. Indian economists have published truly frightening statistics. 40 million people starved to death in India between 1875 and 1900, 30 million between 1901 and 1944. Between 1901 and 1944, 76 million people starved in Asia, and 22 million in Europe. The task of providing full employment and ensuring the welfare of the working masses has been solved only under socialism which does away with poverty and hunger inherited from capitalism, aims at satisfying the requirements of all citizens, and creates conditions for the free development of the individual.

In every capitalist country there always is an army of unemployed proletarians, which is steadily growing because of the concealed overpopulation in the countryside. In the middle of 1958 the number of unemployed in the U.S.A. reached 5,437,000; at the beginning of 1958 in West Germany it numbered 1,432,000; in France—100,000; in Britain—498,000 in May 1958. In the U.S.A. there were about 5,500,000 unemployed in January 1961. At the same time large numbers were only partially employed. According to American economists the number of unemployed in the U.S.A. in 1958 was close on 11,000,000. In September 1963 about 5.8 per cent of the total U.S. labour force was unemployed. The loss in labour time caused by unemployment and partial employment (according to U.S. data) was 8.8 per cent of the total labour time. The unemployment figure in the U.S.A. has remained high for the past decade and rises after every crisis.

Y. Varga is absolutely right in declaring that "not even a staunch defender of capitalism can deny that the only period in the past 30 years in which there has been no mass unemployment was that of the world war. Only when millions of people were killing each other, and other millions were producing death-dealing weapons, was capitalist society able to give jobs to workers."*

But the problem of employment encompasses not only the urban population. Capitalism does not ensure employment for the rural population (agrarian overpopulation relative to labour demand). In the developing countries

* Y. S. Varga, *Basic Problems of the Economy and Politics of Imperialism*, Moscow, 1953, p. 51, Russ. ed.

agrarian overpopulation is reaching alarming proportions. According to the estimates of Professor Prasanta Chandra Mahalanobis, the well-known Indian scholar and public figure, the number of unemployed and partly employed in India comprises 25 to 30 million people. In *Our Economic Problem*, P. A. Wadia and K. T. Merchant declare that India's rural overpopulation reaches 80 million people.

Socialism is an economic system that abolishes unemployment and is therefore considered superior to all former social systems. Socialist planned economy roots out unemployment by eliminating large private property and rapidly expanding social production. Before the First Five-Year Plan there were over a million unemployed workers in the Soviet Union and the concealed rural overpopulation exceeded 8.5 million people. By the end of the First Five-Year Plan period, urban unemployment had been completely eliminated and the rural overpopulation had been substantially decreased. Such is the social importance of planned economy. In all countries which have adopted the socialist system of economy, the reorganisation of production leads to the total elimination of unemployment.

Socialism not only ensures the right to work but also organises labour activities along new lines.

In a society consisting of antagonistic classes, social production is based on exploitation. Capitalist economic organisation splits society by enabling a few parasitical elements to lead an idle life, limits the consumption of the working people, ruins small-scale commodity producers, and impoverishes the working class. This destroys all incentive to raise the productivity of social labour and production. It is therefore easy to see that an economic system guaranteeing equal working rights, and stipulating universal employment is of the greatest social importance. Under that system there are no bounds to the productivity of social labour for exploitation is completely eliminated and the welfare of every member of society is directly dependent on their labour productivity.

Socialist planned economy does away with the waste of labour power and organises it for more productive work. There is no waste of labour force resulting from unemployment, crises of overproduction, strikes and other forms of class struggle. Socialism recognises only socially useful

labour and achieves high productivity on the basis of comradesly co-operation and socialist emulation. Engels rightly declared that "the fact that the communist system fully utilises *its labour power now being plundered is not its only advantage*. The greatest economy of labour power is obtained by *fusing individual forces* which were formerly opposed to each other into a collective social force."* The reorganisation of labour under socialism ensures a rapid growth in its productivity as compared with preceding economic formations.

Capitalist organisation of labour depends on exploitation, and is therefore constantly opposed by the working class. Strikes are a manifestation of that struggle.

Moreover, vast sums of money are needed to keep the exploiting classes in luxury. They appropriate the bulk of the national income and often spend the share that is not accumulated on purposes which, socially speaking, are unproductive. Socialist society eradicates this class and all its dependents. This places greater funds at the disposal of society and distributes them far more rationally.

Private property produces anarchy of production and rivalry. Consequently, periodic economic crises have become a characteristic of capitalism. Socialist society profits from a complete absence of such material losses and anarchy of production. This removes the obstacles raised by private property and capitalist monopolies to hinder the development of technology, and leads to the introduction of progressive methods of production. Harmony between the different branches and economic regions promotes a crisis-free realisation of the social product, high social labour productivity, the fullest utilisation of the productive apparatus, and a rational distribution of society's labour resources.

Harold Moulton, an American economist, has published the following eye-opening facts on capitalist production organisation. The losses in the U.S. national income due to the 1929-33 slump totalled 135,000 million dollars (in 1929 prices), i.e., about one and a half times the 1929 national income. Between 1920 and 1956 the capacities in the U.S.

* Engels, *Zwei Reden in Elberfeld*. Marx, Engels, *Werke*, Bd. 2, S. 545, Berlin Diets, 1959.

iron and steel industry were, on an average, only 80 per cent utilised. This decreased the output of steel by 14-15 million tons a year. In recent years this type of under-employment has been worsening. Between 1950 and 1956 production capacities in the U.S. manufacturing industry have grown by 51 per cent, whereas output has grown by only 27 per cent.

Because of the critical drop in output between 1957 and 1958 (as compared with the last quarter of 1956) the United States produced 33 million tons of pig iron and 56 million tons of steel less than it would have if capacities had been used to an optimal degree. The resulting loss to industry amounted to 60,000 million-65,000 million dollars. By the end of 1960 the productive apparatus in the U.S. steel industry was utilised to less than 50 per cent of its capacity.

In his *World Without War* John Bernal says that in the physical sciences in Britain and America some two-thirds of all newly won information is never published but filed away in firms' records and carefully guarded from their rivals. He also declares that because research is keyed to its possible military uses "the development of peaceful uses of atomic energy has been held up probably by at least a decade".* Capitalist economy also encounters insurmountable difficulties in its efforts to introduce automation.

Capitalist militarisation and wars are yet another means of conquering fresh markets and redividing them. Productive forces are destroyed, people annihilated, and living standards catastrophically lowered. The First World War wrought the following changes in the national wealth of the participant countries (increment and decrement in percentages):

Russia	-60	U.S.A.	+40
France	-30	Germany	-33
Britain	-15	Austro-Hungary	-41
Italy	-20		

The Second World War exacted an incomparably higher toll.

* John Bernal, *World Without War*, London, 1958, p. 22.

Nor is this havoc confined merely to the destruction of productive forces. Wars arrest economic development by bringing peaceful development to a standstill and by decreasing the growth of the population (and hence of the labour force). The after-effects are for decades.

Militarisation in times of peace is an enormous fetter on economic development. According to Academician Varga the U.S. war expenditure in recent years accounted for about 30-40 per cent of the total national income and about 40 per cent of all industrial workers were employed in military production.

In a Statement of the Communist and Workers' Parties it was noted that the decay of capitalism is most forcefully manifested in the United States. U.S. monopoly capital is clearly unable to make adequate use of its productive forces. In the United States constant unemployment has now reached terrifying proportions. Underemployment of capacities is constantly growing. In spite of the enormous increase in military expenditure, effected at the expense of the working people's living standards, production growth rates have flattened out so much in the post-war years that they now barely outstrip the population growth rates. Crises of overproduction are becoming increasingly frequent and the economy has been unbalanced by militarisation.

Many concrete and convincing facts testify to the great advantage of planned socialist economy; amongst them the historically short period socialism needed to assert itself. The feudal system took 200 years to establish its rule, the reign of capitalism took about 100, but the socialist system triumphed in the Soviet Union in less than 20 years.

It took four centuries for capitalism to become a world system, while socialism reached the same predominance a mere 30 years after its emergence. But it is not only a question of time. The "birth pangs" of a socialist society are less painful than those of capitalism. The long initial period of capital accumulation was attended by the mass expropriation of small producers, and the ruin it brought on them could be likened to a destructive war. The shaping of socialism does not involve such sacrifices.

The most important indicators of socialist economic supremacy are the growth rates of production and the high level attained by culture and general living standards.

Moreover, governed by the laws of socialist development, these rates are completely stable in contrast to their capitalist counterparts. The data below, illustrating the economic growth of the Soviet Union and the principal capitalist countries, speak for itself.

Average Yearly Growth Rates in the U.S.S.R. and the Capitalist Countries (per cent)

	U.S.S.R.	U.S.A.	Britain	France
Industrial output (1950-62)	11.3	3.9	3.1	5.9
Agricultural output (1954-62)	5.5	1.7	—	—
National income (1950-62)	9.6	3.2	2.1	4.4
Labour productivity in industry (1950-60)	7.7	3.6	2.9	6.9
Capital investments (1953-62)	11.1	1.5	5.8	6.4

High growth rates are typical of the Soviet Union and all socialist countries. The table below gives comparative figures on the dynamics of industrial production in both the socialist and the capitalist systems.

Index of Industrial Production in Socialist and Capitalist Countries (1937=100)

	1950	1955	1962
Socialist countries	190	362	about 7.5 times
Capitalist countries	146	198	269

For the past ten years the socialist countries' average yearly increase in industrial output was 11.5 per cent, i.e., 2.3 times higher than that of the capitalist countries. As a result of the outstanding successes of the socialist countries, the main content, principal trends and basic features of mankind's progress are in our days determined by the world socialist system.

These high growth rates are a guarantee of socialism's impending victory in the economic competition with capitalism. High production growth rates have already enabled the Soviet Union to outstrip all capitalist countries, except the U.S.A., in absolute industrial output; and all countries, including the U.S.A., in absolute production growth.

According to data provided by Strumilin for the years 1947 to 1955, the Soviet Union's absolute annual growth in industrial output was 25 per cent higher than that of the United States. If we take into account that 75 per cent of the growth of U.S. production is due to the war industry and associated industries, then the economic supremacy of the Soviet Union becomes even more apparent. Between 1953 and 1959 the average yearly absolute increase in Soviet production was roughly double that of the United States.

In appraising the viability and advantages of socialism in any given country, we should compare its economy not only with that of other countries but also with its own earlier economy. It is therefore both scientific and extremely fruitful to compare the socialist economy of the U.S.S.R. with that of capitalist and feudal Russia, for this will clearly illustrate the supremacy of the socialist system over economic formations that have become relics of the past in the Soviet Union, but still dominate vast areas of the world today.

In 1962, the output of Soviet industry was 48 times greater than in pre-revolutionary Russia. In fact so great

Growth of Soviet Economic Might Between 1940 and 1965 (1940=100 per cent)

GNP	564
National income	593
Production funds in the economy as a whole	499
Including industry:	706
Gross industrial output	790
Gross agricultural output	178
Freight turnover (all kinds of transport)	566
Capital investments of state and co-operative enterprises and organisations, collective farms and of the population	888
Retail trade turnover of state and co-operative trading establishments	436

has been the advance of Soviet industry over that of pre-revolutionary Russia that any real comparison is impossible.

Lenin taught us that the victory of the new social system would, in the final analysis, be decided by the level of labour productivity, i.e., the more progressive a formation, the higher its labour productivity. High labour productivity enables the new system to vanquish the old—in which labour resources are used less rationally. The computations of the total labour expenditure (embodied and live) per unit of industrial output under different organisations of industrial labour in Russia are so revealing that further comment is superfluous.

Changes in Labour Expenditure Per Ton of Output Under Different Modes of Production

	Coal	Pig Iron	Sugar
Feudalism	100	100	100
Capitalism			
pre-monopoly	63	59	23
monopoly	53	14.3	11
Socialism	27	4.0	3.2

These impressive advances were made by socialism in the first few years of its development. Now they are even higher. For example, in 1962 the labour productivity of industrial workers exceeded the pre-war level by 230 per cent.

No less spectacular are the successes of socialism in raising the living standard of the population (see table on page 352).

In 1962 the length of the average industrial working day was lowered to 6.93 hours with a corresponding increase in the real incomes of workers. Between 1959 and 1962 the sale of goods to the population increased by more than 20 per cent. In this context it is interesting to note that the average life span in the U.S.S.R. is now 70 years. The living standard of the Soviet people continued to rise. In 1965, as

Living Standard of Workers and Peasants

	1913	1957-59
Working day in industry (hours)	9.9	7.9
Real income of workers	100	570
Real income of peasants	100	700
Consumption of basic foods		
textile workers		
meat and lard	100	203
milk and dairy products	100	387
eggs	100	236
sugar	100	228
flour products	100	88
potatoes	100	139
peasants (collective farmers)		
meat and lard	100	226
milk and dairy products	100	267
eggs	100	434
flour products	100	84
potatoes	100	227
sugar	100	347
Workers' average life span (years)	32	68

compared with 1940, the real income per employed factory and office worker had grown by 130 per cent, the real incomes of the peasants by 240 per cent. In 1965 the Soviet population received a total of 41,500 million rubles in grants out of social funds, as compared with 4,600 million rubles (in comparable prices) in 1940.

In considering the results of the economic competition between socialism and capitalism, it should be remembered that historical conditions without doubt favoured the U.S.A. It is therefore all the more remarkable that the Soviet Union is overtaking and beginning to outstrip the U.S.A. Following the War of Independence the U.S.A. entered a 60-year-long period of peace. As distinct from Russia, America was never encumbered by feudalism, which was a serious fetter on our own economic development. Neither did the world wars spread to U.S. territory and the United States lost fewer people than other countries, and U.S. capitalists made enormous profits on wars.

Tsarist Russia was extremely weak economically. The

Middle Ages had long since arrested its development and continuous wars had devastated the Russian lands. The Soviet Union had to build up an economy from scratch without stocks or reserves and unaided by any other country. In addition, out of the 40 years of its existence, the Soviet Union was able to spend only half of this time on peaceful construction, whilst the other half went on resisting aggressors and eliminating the aftermaths of war.

The direct damages alone, wrought by the Great Patriotic War, totalled 679,000 million rubles. This amounted to some 50 per cent of the total state capital investments between 1928 and 1955, or more than double the capital investments into construction during the 12 pre-war years. The total loss, including war expenditure and the temporary loss of income from industry and agriculture in enemy occupied regions, amounted to 2,569 million rubles. Had these enormous funds been directed to economic needs, tasks still facing the country would long since have been solved.

The system of planned economy has already proved its supremacy and shown that it will far outpace anarchic development of capitalism. Universal employment, the optimum use of productive apparatus, the growth in the people's living standards and resulting increase in consumer demand, the equal and mutually advantageous co-operation between the socialist countries characterised by the lack of competition, the use of material and financial resources for the peaceful development of the economic branches—all guarantee that planned economy will continue in its success.

The facts given above show that socialism has created a special sort of society; that the real history of mankind began only with the advent of socialism. Engels wrote about the disharmony in the capitalist world between aims and achievements, stressing that that world is dominated by unpredictable forces far more powerful than those applied consciously. "Darwin did not know," Engels said, "what a bitter satire he wrote on mankind, and especially on his countrymen, when he showed that free competition, the struggle for existence, which the economists celebrate as the highest historical achievement, is the normal state of

the *animal kingdom*. Only conscious organisation of social production, in which production and distribution are carried on in a planned way, can lift mankind above the rest of the animal world as regards the social aspect, in the same way that production in general has done this for mankind in the specifically biological aspect. Historical evolution makes such an organisation daily more indispensable, but also with every day more possible. From it will date a new epoch of history, in which mankind itself, and with mankind all branches of its activity, and particularly natural science, will experience an advance that will put everything preceding it in the deepest shade.”*

The planned socialist economy guides not only the welfare of millions of people in the socialist countries, but is also a symbol of hope for working people throughout the world.

* Engels, *Dialectics of Nature*, Moscow, 1964, pp. 35-36.

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ERRATA

	Reads	Should read
p. 138, line 6 from top	summary below compares...	summary above compares...
p. 159, line 13 from top	sugar beet and linen...	sugar beet and cotton...
p. 168, line 16 from top	...by 110 per cent.	...by 52.4 per cent...
p. 168, lines 18-19 from top	decreased by 210 per cent, of non-ferrous rolled stock by 330 per cent and of ball bearings by 2,000 per cent.	decreased by 67.8 per cent, of non-ferrous rolled stock dropped 430 times, and of ball bearings, 21 times.
p. 241, line 16 from top	The reform also wrings changes...	The reform also works changes...

Заказ 1930